DECISION

Fair Work Act 2009
s.739 - Application to deal with a dispute

Arnott's Biscuits Ltd T/A Arnott's
v
United Voice; "Automotive, Food, Metals, Engineering, Printing and Kindred Industries Union" known as the Australian Manufacturing Workers' Union (AMWU); Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia
(C2017/5610)

Food, beverages and tobacco manufacturing industry

COMMISSIONER HUNT BRISBANE, 31 MAY 2018

Dispute concerning the introduction of alcohol and other drugs policy – method of testing – examination of urinalysis or oral fluid testing – detection times of various illicit drugs – privacy issues in providing urine samples – is proposed urinalysis unjust or unreasonable.

Background

[1] Arnott's Biscuits Ltd (Arnott's) is a food manufacturer, long established in the Australian community. It operates from three sites including Huntingwood NSW, Marleston SA, Virginia QLD, together with its corporate office at North Strathfield NSW.

[2] Arnott's wishes to introduce an Alcohol and Drugs Policy, together with an Alcohol and Drug Health and Safety Procedure for all of its employees, including clerical employees and management. It currently does not apply a drug and alcohol testing regime across its sites. Throughout this decision the Policy and the Procedure will collectively be referred to as the ADP.

[3] Manufacturing and maintenance employees are covered by the *Arnott's Biscuits Enterprise Agreement* (Agreement), approved by the Fair Work Commission (Commission) on 9 July 2015.[1] The nominal expiry of the Agreement is 24 March 2018.

[4] On 11 October 2017 Arnott's made application to the Commission pursuant to s.739 of the *Fair Work Act 2009* (Act), requesting the Commission deal with a dispute in

accordance with a dispute settlement procedure. The Agreement contains a clause titled, '*Avoidance of Disputes'*. It is not contested, and I determine that the Avoidance of Disputes clause authorises the Commission to arbitrate the industrial matter referred to the Commission pursuant to the clause below:

> **"3.4 Avoidance of Disputes**
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> (1) The matters to be dealt with in this procedure shall include all grievances or disputes between an employee and the Employer in respect to any industrial matter, including the operation, implementation or interpretation of this Agreement, the terms of the National Employment Standards (**NES**) and all other matters that the parties agree on and are specified herein. Such procedure shall apply to a single employee or to any number of employees.
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> (2) In the event of an employee having a grievance or dispute the employee shall in the first instance attempt to resolve the matter with the immediate Team Facilitator, who shall respond to such request as soon as reasonably practicable under the circumstances. If the grievance/dispute is with the immediate Team Facilitator, that person should move to Step Three (3) of the Avoidance of Dispute procedure.
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> (3) If the grievance or dispute is not resolved under sub-clause (2) hereof, the employee or the employee's representative may refer the matter to the next higher level of management for discussion. Such discussion should, if possible, take place within 24 hours after the request by the employee or the employee's representative.
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> (4) If the grievance or dispute is still unresolved after discussions listed in sub-clause (3) hereof, the matter shall, in the case of a member of a union, be reported to the State Secretary of the relevant union Employee Organisation and the relevant Senior Management of the Employer or the Employer's nominated Industrial Representative.
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> (5) If, after discussions between the parties, or their nominees mentioned in sub-clause(4), the dispute remains unresolved after the parties have genuinely attempted to achieve a settlement thereof, then the dispute is to be referred to Fair Work Australia to settle the dispute.
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> (6) Whilst all of the above procedure is being followed, normal work shall continue except in the case of a genuine safety issue.
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> (7) The status quo existing before the emergence of the grievance or dispute is to continue whilst the above procedure is being followed.
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> (8) All parties shall give due consideration to matters raised or any suggestion or recommendation made by Fair Work Australia with a view to the prompt settlement of the dispute.
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> (9) Any determination by Fair Work Australia (subject to the party's right of appeal under the Act) will be final and binding on all parties to the dispute. To remove doubt, Fair Work Australia is authorised to conciliate and/or arbitrate any matter referred to it under this clause.

(10) Discussions at any stage of the procedure shall not be unreasonably delayed by any party, subject to acceptance that some matters may be of such complexity or importance that it may take a reasonable period of time for the appropriate response to be made."

[5] The dispute nominated the following unions as respondents:

(a) United Voice;
(b) "Automotive, Food, Metals, Engineering, Printing and Kindred Industries Union" known as the Australian Manufacturing Workers' Union (AMWU); and
(c) Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia (CEPU)

collectively the Unions.

[6] Before Arnott's can introduce any drug and alcohol policy it must meet its obligations to consult with affected Agreement-covered employees and Unions, together with scheduling discussions with the Consultative Committee[2], which is made up of eight employees and three managers.[3]

Purpose of the ADP and when testing will occur

[7] The ADP is desired by Arnott's to enable it to minimise the risk to safety in connection with the misuse of alcohol and drugs at its workplace. An associated purpose is to provide education and support to Arnott's employees who have drug and alcohol dependency issues.[4]

[8] The ADP allows for urine testing:

(a) as part of the pre-employment process;
(b) following a serious incident;
(c) where there are reasonable grounds to believe that an individual may be at risk of being impaired by alcohol or drugs; or
(d) following a positive test result.

[9] The ADP does not provide for any form of random testing.

Consultation prior to notification of the dispute

[10] The parties have been in discussion over the ADP since August 2017. On 20 September 2017 United Voice wrote to Arnott's stating that its unresolved concerns included, but were not limited to:

(a) the proposed testing regime to be adopted;
(b) use of the policy to impose punitive outcomes, rather than measures constructively aimed at improving employee wellbeing; and

(c) the extent to which the proposed policy is incorporated into the employment relationship.

[11] It is relevant to note that the dispute before the Commission relates only to employees employed pursuant to the Agreement at the Virginia site. No application has been made relevant to the other production sites in other states or the administration office in NSW.

[12] On 22 September 2017 Arnott's replied to United Voice noting that by 13 September 2017 it had amended the ADP by:

(a) Reducing the period in which employees may be retested after a positive test from 12 months to 6 months;

(b) Including language about ensuring that information provided by employees about their medications is treated sensitively and confidentially; and

(c) Including the following sentence in the Policy: "Not all breaches will result in termination. Other outcomes could include a warning, counselling, participation in the Employee Assistance Program, scheduled testing and the development of a return to work plan."

[13] By letter dated 4 October 2017 from United Voice to Arnott's, it is clear that Arnott's and United Voice were not in agreement as to the method of testing to be used for the detection of drugs. The ADP requires urine testing to be undertaken. United Voice expressed the following concerns within the letter:

> "United Voice maintains that oral fluid testing is the most appropriate and least invasive method to ensure impairment due to illicit drug use.
>
> To this point in the consultative process, Arnott's has not adequately addressed this proposition and the reasons why urine testing is the company's preferred method. This is particularly relevant in circumstances where independent experts were invited to speak about the benefits of each testing method and agreed that oral fluid testing best identifies impairment and does so in a way which maintains employee dignity.
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> It is also the view of United Voice, supported by the Fair Work Commission in *CFMEU v Port Kembla Coal Terminal Ltd*, that the use of urine testing as opposed to oral fluid testing is unjust and unreasonable."

[14] The letter addressed further concerns held by United Voice relevant to what is meant by 'reasonable cause', whether reasonable cause should also be established following a safety incident, and focus on the policy as a wellbeing measure, rather than a disciplinary one.

Notification of a dispute

[15] The relief sought by Arnott's was conciliation at first instance, and if that was unsuccessful, an 'order' that it can proceed with the introduction of the ADP at its Virginia site.

[16] A conference was convened before me on 2 November 2017. At the conference representatives of the Unions explained that in some workplaces, oral fluid (saliva) self-testing kits and breathalysers are made available to employees immediately outside of their workplace. This allows an employee who considers that they might breach their employer's drug and alcohol policy to self-test, and if they return a non-negative result, make arrangements for their safe return to home without having attended for work.

[17] Following the conference the parties liaised to attempt to resolve all outstanding matters between them. A further conference took place on 30 November 2017. Arnott's provided a draft 'self-testing regime' document, outlining how it would make available to employees, for an interim period, voluntary self-testing using oral fluid devices immediately outside of its premises at its Virginia site.

[18] The parties were unable to resolve all matters before them, and accordingly directions were set for the filing of material. The Commission required of Arnott's a proposed question for arbitration. The question put is as follows:

> "Can Arnott's Biscuits Limited implement urine testing as the testing method for drugs at its Virginia site in the following circumstances:
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> a. pre-employment;
> b. following a High, Extreme or otherwise reportable incident;
> c. for reasonable cause; or
> d. before any return to work following positive test or a self-disclosed drug dependency issue,
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> on the terms and for the purposes, proposed in the draft Alcohol and Drugs Policy and Alcohol and Drugs Health & Safety Procedure (AOD Policy)."

[19] The matter was heard before me on 19 and 20 February 2018, and closing submissions on 6 March 2018. Leave was granted to Mr D. Williams of Minter Ellison to represent Arnott's, and to Mr R. Reed of Counsel to represent United Voice. Mr S. Stanford represented the AMWU, and Mr G. Rogers the CEPU.

[20] At the commencement of the hearing I inquired of Arnott's if the ADP had been adopted at its other sites. Mr Williams explained that it had not, and if the ADP was supported by the Commission, training relevant to the ADP would be implemented appropriately across all Arnott's sites. No decision had been made by Arnott's as to the appropriateness of adopting the ADP at sites other than Virginia, if the Commission did not

support the ADP, noting that the dispute was confined to Agreement-covered employees at the Virginia site.

[21] Arnott's submitted that the Commission should only interfere in management decisions where it results in an 'unjust or unreasonable' outcome for employees.[5] United Voice agreed and stated the Commission should treat the determination of the application in accordance with the principles set out in *AFULE v State Rail Authority of NSW*, where it was stated the [Commission] should:

> "…examine all the facts and not seek to interfere with the right of the employer manage his own business unless he is seeking from the employee something which is unjust or unreasonable" [6]

[22] United Voice submitted that where Arnott's proposes urine testing, and United Voice proposes oral fluid testing, the principle issue becomes which testing method is to be adopted having regard to the purpose and aims of Arnott's drug testing policy.[7]

The proposed ADP

[23] The submissions of United Voice helpfully set out issues for consideration within the ADP:

> "9. The stated aim of the proposed Policy is to minimise the risks posed to workplace safety by the misuse of alcohol and drugs and to offer appropriate support to an employee who may experience drug or alcohol dependency issues.
>
> 10. On the issue of illicit drugs, the proposed Policy states that if an employee uses illicit drugs outside of work, it is the employee's responsibility to ensure that he or she is fit for work prior to resuming work.
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> 11. It is important to note the following features of the proposed Policy and Procedure:
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> (a) Arnott's does not intend to engage in random drug testing and testing is limited to the four circumstances set out in the question for arbitration;
>
> (b) the testing medium is to be a urine test with the initial screening test conducted on site in accordance with the relevant Standard, being AS/NZS4308:2008;
>
> (c) an external laboratory confirmatory test is required for all initial screening drug tests that detect the presence of drugs above the level specified in the Standard and any conflict between the initial drug test and the laboratory analysis is to be resolved in favour of the laboratory analysis;
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> (d) testing would occur following a workplace incident rated as High or Extreme actual or potential outcome according to the company risk matrix, or one that was reportable to the Regulator or other external agency (i.e. a serious incident), with the

> assessment of the risk category to be conducted by a competent leader as well as a Health and Safety Representative (HSR) where available;
>
> e) where testing would occur because a competent leader determined that there was reasonable cause to believe that an employee was at risk of being impaired by drugs or otherwise in breach of the Policy, reasonable cause has to be based on specific observations."

Evidence of Arnott's witnesses

Ms Gianina Ayers

[24] Ms Ayers is Arnott's Occupational Health and Safety Manager at the Virginia site. Ms Ayers gave evidence that at the site Arnott's produces 128 different products packaged into 94 different packaging formats. She stated that the site is a high risk environment involving the operation of large machinery, heavy equipment, powered mobile plant and ovens operating at high temperature.

[25] Machinery at the site includes mixers, cutting machines, ovens, creaming machines, packaging machines, conveyors, forklifts, robotic arms and other powered mobile plant. The ovens can be operated at up to 350° Celsius.

[26] Risks at the site include explosions caused by flour particles. One such explosion occurred many years ago at the site. Other risks include working at heights and electrical equipment.

[27] There are approximately 708 workers at the site including maintenance (trades and electrical), production (biscuit manufacturing), and clerical/office workers. Of the production workers, Ms Ayers stated that the following classifications of workers have some risk of injury while at work:

(a) Ingredient handlers:

(i) lifting ingredients weighing up to 25 kilograms;
(ii) accurately follow recipes and identify contamination issues;
(iii) operate machinery, pumps and valves.

(b) Mixers:

(i) load ingredients by hand into mixing machines;
(ii) cross-check against recipes, identify contamination issues;
(iii) clean mixing machines;
(iv) work with dough tippers.

(c) Cutting Machine Operators:

(i) guide dough through rollers (moving machinery and dealing with sharp blades, cutters and pinch points).

(d) Bakers:

(i) operate ovens approximately 100 metres long;
(ii) working with ovens at varying temperatures;
(iii) ensuring ovens are free from blockages to prevent fires;
(iv) shutting down ovens and gas in an emergency.

(e) Oil room operators:

(i) spray biscuits with oil which can become highly combustible and slippery.

(f) Processing and packaging machine operators:

(i) interact with moving machinery to check quality and weight of products;
(ii) adjust the settings on and clean packaging machines
(iii) operate hot glue systems to seal packages;
(iv) perform reel changeovers, load empty cartons onto magazines and thread rewind on the baggers

(g) Store persons / Paper-store operators:

(i) directing trucks;
(ii) implementing loading and unloading exclusion zones.

[28] Ms Ayers' evidence is that there has been a number of drug and alcohol related matters at the Virginia site in recent years. These include:

(a) In or around May 2017 the mother of a job applicant contacted an employee at Arnott's to ask if it conducted drug testing as she was concerned that her son would fail a drug test as he had taken drugs on the weekend. The job applicant tested positive to cannabis in the recruitment stage as part of a voluntary drug test. That individual was not offered a position at Arnott's.

(b) In or around 2016 a Randstad employee (a casual employee) admitted to using illicit substances on a regular basis. The employee was no longer permitted to work at the Virginia Site following this admission.

(c) In or around November 2014 an employee inadvertently disclosed to the Injury Management Team at Arnott's that they were using illicit drugs. Arnott's requested the employee undertake a drug test. The employee agreed to take a drug test and an

appointment was arranged. The employee did not attend the initial appointment however, three days later he did so and took the drug test. The results indicated a presence of a high level of prescribed medications. The employee was offered EAP and subsequently returned to work.

(d) In or around October 2015 the Healthy Business Partners Program, which is run by a third-party provider, contacted Arnott's to raise its concern regarding the number of employees at Virginia who had disclosed that they had drug and/or alcohol problems and that they used drugs and/or alcohol at work. The Healthy Business Partners Program provider reported that the number of employees who disclosed this from Arnott's was higher than at other heavy industry workplaces in which it operates.

(e) In or around February 2016 there were a number of beer bottles and beer bottle caps found in locker rooms at the Factory.

(f) In or around December 2015 an employee who was engaged as a machine operator on Line 2 disclosed that they had a drug problem to management. The employee was placed on a program to help support their rehabilitation which included a return-to-work plan with random testing. On one occasion the employee failed a random test and refused to attend a second random test. Ultimately the employee's employment was terminated for related reasons.

(g) An employee approached management to advise that they were concerned that a fellow employee was under the influence of alcohol at work. After discussions with the employee he agreed to take a breath test. A test was taken which showed that the employee had a breath alcohol content of 0.083% at 10.15am. Twenty minutes later the employee took another test which showed he had a breath alcohol content of 0.073%. The employee was given assistance to travel home. He received a Final Written Warning and was placed on a return to work testing program which required him to take a breath test up to 12 times within a 12 month period.

[29] Ms Ayers manages the Injury Management Team, assisting in the management of non-work related issues, and promoting support services such as the Employee Assistance Program (EAP). It is Ms Ayers' evidence these services, together with the Healthy Business Partners Program can support the Arnott's workforce in managing any drug and alcohol problems.

[30] The ADP will not apply until such time as all workers have been trained in the ADP. During the training time Arnott's will continue to promote access to the EAP for any workers who are dealing with an alcohol or drug issue. Ms Ayers estimates that it will take Arnott's approximately three months to complete all training to workers.

Evidence of Mr Ivan Brown

[31] Mr Ivan Brown is employed by Arnott's as the Engineering Director Asia Pacific and is responsible for safety in Asia Pacific, Denmark and all of engineering at Arnott's in Asia Pacific, Asia China and Kelsen in Denmark.

[32] Mr Brown's evidence is that he and Mr Funnell (Vice President of Supply Chain) had several conversations a number of years ago about various changes that they wanted to implement in respect of safety to reduce the risk of injury to workers. During their discussions, Mr Brown's evidence is that he and Mr Funnell noted that:

(a) There had been a number of incidents which had occurred across the business which we were concerned had arisen due to workers being under the influence of drugs or alcohol, including at the site in Virginia. One of the incidents Mr Brown recalled involved an employee at the site where the employee had self-declared that they had a drug dependency;
(b) An increasing number of organisations were introducing a testing regime; and
(c) There was an increasing trend of persons with drug and alcohol dependency issues in the broader community and they knew that workers at Arnott's would not be excluded from these trends.

[33] Mr Brown's evidence is that he and Mr Funnell believed that one key change would be to introduce a drug and alcohol testing regime. They agreed to prepare a recommendation for the Arnott's Australian Leadership Team, which approved the program in March 2016.

[34] In or around July 2015 Arnott's established a Governance Team, of which Mr Brown was a member of, to commence the process of drafting and implementing a drug and alcohol policy. In or around December 2015 the Governance Team agreed to put forward a recommendation to the Australian Leadership Team that Arnott's would introduce an Alcohol and Drugs Policy and Alcohol and Drugs Health and Safety Procedure at its three production sites and its corporate office in Sydney. The recommendation was subsequently approved by the Australian Leadership Team.

[35] Representatives of Arnott's attended an employment law workshop on managing alcohol and drugs where representatives of The Drug Detection Agency Testing and Training (TDDA) were in attendance. TDDA is a company providing drug and alcohol testing to workforces of companies which engage TDDA within Australia and NZ. Subsequently, Arnott's selected TDDA to be its testing provider. Mr Brown was briefed on the issues which arose at the workshop, including some concerns in relation to the reliability of oral fluid testing.

[36] Arnott's representatives conducted benchmarking activities and reports were compiled whereby an outline of organisations and their respective testing regimes were provided for

consideration. Mr Brown observed from these reports that there had been a trend toward urine testing.

[37] Mr Brown consulted with experts to understand what testing method and testing process would be the best fit for Arnott's. The meetings attended by Mr Brown included:

(a) A meeting with Whitney Hughes from Whitney Hughes Consulting in October 2015. Ms Hughes is a medical review officer and experienced in drug and alcohol policy development. She advises Qantas on its drug testing program and specifically discussed the deficiencies with oral fluid testing devices; and

(b) A Governance Team meeting with representatives from TDDA who provided an education session on drug and alcohol testing in November 2015. A key point made by TDDA during the session was that there were some disadvantages with oral fluid testing, including its inability to detect a wide range of drugs that cause impairment, together with its limitation on detection times. TDDA also stated that oral fluid testing devices are not currently approved by the National Association of Testing Authorities (NATA).

[38] Mr Brown's evidence is that as the research and consultation process progressed, his opinion on the suitable testing method changed. In particular, TDDA and Ms Hughes advised him that the level of accuracy of oral fluid and urine testing varied greatly. Both advised that urine testing was more accurate, could pick up a wider range of drugs which could potentially impact safety and was less time sensitive. This time factor would be important if a worker was involved in a serious safety accident where the priority is to get them to hospital for treatment. Urine testing means that testing can occur at a later time after the worker has been treated.

[39] An expert opinion that Arnott's relied on in forming its view that urine testing would put it in a better position to ensure the health and safety of its workforce was set out in a paper titled, *The Efficacy of Oral Fluid Testing v Urine Testing in the Workplace* by Professor MacDonald Christie and Dr John Lewis. In that paper Professor Christie and Dr Lewis made it clear that on-site urine testing is much more likely than oral fluid testing to provide an indication of the risk of a worker being affected by drugs in the workplace.[8]

[40] Ultimately in or around March 2016 the Governance Team made a decision that urine testing would mean that Arnott's would be more likely to identify when a worker was at risk of being impacted from drugs at work.[9] Arising from this process, members of the Governance Team prepared a position paper in or around November 2017 outlining the reasons why it had determined that urine testing was preferable to oral fluid testing.

[41] Mr Brown stated that the benefits of random testing in terms of risk mitigation was considered by the Governance Team as part of the decision making process. However, a decision was made that the policy would not involve random testing, which would involve more frequent and higher volumes of testing and would be more invasive.

[42] In cross-examination it was put to Mr Brown that the ADP states, *"Arnott's does not endorse or encourage the use of illicit drugs outside of work. If you use illicit drugs outside of work, it is your responsibility to ensure you are fit for work prior to resuming work."* Mr Brown agreed that it is effectively a statement of non-interference in the private lives of workers if they use illicit drugs, while not condoning the use, and so long as the use doesn't impinge upon fitness for work upon resumption of work.[10]

Mr Bryce Dick

[43] Mr Dick is the Managing Director of a TDDA. Arnott's has engaged TDDA to conduct its drug and alcohol testing on implementation of the ADP.

[44] During the first day of the hearing it became evident that there was insufficient evidence before the Commission as to how Arnott's, in reliance on its service provider, TDDA, proposed to physically conduct drug testing through obtaining urine samples from those within the workforce required to provide a sample. The Commission suggested Arnott's provide evidence to address these matters.

[45] On the second day of the hearing Mr Dick gave evidence by video link from Sydney. A PowerPoint slide was admitted into evidence demonstrating a step-by-step instruction on the procedures of providing a urine sample, outlining the role of the collector, the donor, and the administration that would be undertaken in obtaining the sample for testing.

[46] Upon requiring a test to be undertaken, Arnott's will contact TDDA and a collector will attend the workplace in a branded van, or if necessary, an unmarked van. The steps outlined by Mr Dick include:

(a) Once a person is identified for drug testing, they will enter a TDDA van and the door will be closed behind them. Only the collector and the donor will be in the van.

(b) The van is well lit and air-conditioned. It has one way glass and blinds to ensure that no person can see into the van.

(c) A TDDA Form 1.1 is used to record the testing process. The first step prompted by the form is to confirm the person's identity by photographic identification.

(d) The donor is then asked whether they are taking any medication.

(e) A consent is read to the donor and the donor is asked to sign the Form 1.1 to demonstrate informed consent to the test. If consent is not provided, the test does not proceed.

(f) The physical testing process commences with an alcohol breath test. An accredited device is used.

(g) The urine sample process is then explained including how much urine is required in the collection vessel. The donor is then asked to wash their hands in the van before giving a urine sample. The test is not an observed test. It is a 'monitored test' meaning there is no direct observation of urination unless the collector forms a view that there may be a risk to the integrity of the specimen (for example, after a cold or diluted specimen is returned).

(h) The toilet is located in a van behind a partition. There is no door however the area is private and at no time is the person observed urinating.

(i) The donor is not required to remove any small personal belongings (e.g. phone or wallet) before providing a urine sample although consistent with the Standard, no backpacks or bulky jackets are permitted in the van.

(j) If the donor is female and collector is male, then once the hand washing is complete, the collector will exit the van, close the door and turn off the water to the van. This is so that the urine specimen cannot be diluted.

(k) If the donor and the collector are the same sex or the donor is male and the collector is female, then once the hand washing is complete, the collector will stand at the back of the van and look at the back right shoulder of the donor. The purpose of this is to ensure that the donor does not pull anything out of their pants or pockets.

(l) Even if the collector remains in the van, if the donor has trouble providing a sample then the collector may exit the van, close the door and turn off the water.

(m) The toilet must not be flushed by the donor to enable the collector to visibly confirm no substances have been added to the urine. The toilet water is coloured pink to assist the collector to determine this.

(n) If the collector is in the van, the collection vessel is handed to the collector by the donor. If the collector is outside the van, the donor knocks on the door and advises the collector to return to the van.

(o) The donor is then provided with an opportunity to wash their hands.

(p) The urine is then tested for temperature, adulterants and dilution in the van in the presence of the donor. Assuming there are no issues in relation to the specimen then the collector places the lid on the cup and the sample is then tested.

(q) Depending on the ability of the donor to supply a sample, generally the process takes about 8 to 10 minutes.

[47] I questioned Mr Dick relevant to privacy concerns I held in the act of a worker providing a urine sample to the collector. As a result of the questions posed by the Commission to Mr Dick, Arnott's later filed and served an amended ADP. The changes proposed by Arnott's deal with not requiring a donor to reveal medication the person is taking if it is not relevant to the test or the person's capacity work safely.

[48] Further, the ADP was amended in the following way to address the concerns the Commission held during the hearing on 20 February 2018:

(a) Generally urine tests will be monitored but not observed (the donor will not be observed urinating but the tester may be able to view other body movements);

(b) If the collector and donor are not of the same gender the test will not be monitored. That is, the collector will leave the van;

(c) If the donor is female and the collector is female, and if the donor has informed the collector that she is menstruating, the test will not be monitored and the collector will leave the van;

(d) A sanitary bin will be provided in the testing area;

(e) In circumstances where a donor is having difficulty providing a sample, or is uncomfortable with the collector being present, the donor may request that the test not be monitored. If the collector considers that the risk of tampering is low, the collector may elect not to monitor the test and therefore leave the van;

(f) Arnott's does not permit observed testing (where the donor is observed urinating);

(g) While the relevant Australian Standard provides that the donor must not flush the toilet until the urine specimen has been handed to the collector, once a urine sample has been handed to the collector, the donor is permitted to flush the toilet so that any paper or product in the toilet is not seen by the collector;

(h) When entering the van the donor will be permitted to retain possession of small personal items, or place them in a secure place in the testing area. Large items such as back packs, hand bags and jackets are not permitted

[49] Mr Dick gave evidence that TDDA holds Nestle and Qantas among its clients. Nestle has adopted urine testing for post-incident and reasonable cause, and oral fluid testing for random testing.[11]

[50] TDDA provides 'surveillance testing' for Qantas, for workers returning to work, where they will be required to have repeated tests. This is conducted by way of urine analysis. Qantas also undertakes urine testing for post-incident and reasonable cause.[12]

[51] TDDA also services Asahi, a beverage manufacturer. Urine testing is undertaken for post-incident and reasonable cause, while oral fluid testing is used for random tests.

Dr John Lewis

[52] Arnott's called Dr Lewis to give evidence as an expert witness. Dr Lewis is a self-employed qualified and practicing Consultant Toxicologist to the Centre for Forensic Science, University of Technology, Sydney. Dr Lewis holds qualifications in a Bachelor of Science, a Master of Science and a Doctor of Philosophy. He is the chairman of Standards Australia CH-036 responsible for the development of Australian Standard AS/NZS 4308, *Procedures for specimen collection, and the detection and quantitation of drugs of abuse in urine.*

[53] There did not appear to be any objection to Dr Lewis being described as an expert in the field of toxicology, and I give relevant weight to his extensive knowledge in this field.

[54] Dr Lewis' evidence is that neither urine nor oral fluid testing can identify impairment. He stated:

> "The presence of a drug in oral fluid implies a person has taken that substance very recently (within hours) and therefore is most likely affected by it. However, one cannot correlate any level of impairment with the detection of a drug, nor can one apportion a time of use or amount used."[13]

[55] Dr Lewis gave evidence that following the consumption of drugs, the vast majority are excreted in urine, either as the parent drug, or more often as breakdown products (metabolites). Drugs collect in the bladder where they can concentrate and are excreted in the urine.

[56] The vast majority of drugs can be easily detected through urine testing within 1-5 days or so after use. The actual period of detection of drugs in urine depends on the dose, type of drug and frequency of use.

[57] Relevant to oral fluid testing, many drugs are secreted into saliva from the blood stream. The concentration of drugs varies, depending on the specific drug or drug type, and the amount of protein binding within the blood stream, as only drugs not bound to proteins can pass from the blood into saliva. Most of the common illicit substances, including opiates, amphetamine types, cannabis metabolites, cocaine metabolites, and a range of the known synthetic substances, as well as prescription items such as benzodiazepines (Valium types), other hypnotic depressants (zolpidem, otherwise known as Stillnox), antidepressants, antihistamines, synthetic opioids (methadone, buprenorphine and oxycodone) are readily identified in urine.[14]

[58] Dr Lewis gave evidence as to whether, in his opinion, urine or oral fluid testing provides the most effective basis for testing for drugs on a 'for cause' basis – as opposed to random testing - when taking into account a number of considerations. The following is Dr Lewis' evidence.

Accuracy and reliability

[59] Accuracy is defined as the ability to definitively identify the specific drug or metabolite within the biological matrix, together with correctly determining the concentration of the specific drug/metabolite. Reliability is the ability on each occasion and by different analytical staff to correctly identify the drug/metabolite and its concentration.

[60] For laboratories to be accredited by the National Association of Testing Authorities (NATA) to Australian/New Zealand Standard AS/NZS 4308:2008 they must demonstrate competency and an understanding of procedures.

[61] The Australian Standard AS 4760 for oral fluid testing was produced in 2006. Due to the lack of independent assessment of on-site devices as to their accuracy and reliability, NATA rescinded accreditation to that section of the Australian Standard in 2013. 'On-site devices' refer to the testing done at the workplace, as opposed to testing done in the laboratory.

The ability to detect the presence of drugs (i.e. the broadest range, including prescription and over the counter medication and synthetic drugs, that may impact on an individual's fitness for work

[62] Especially relevant to synthetic drugs, Dr Lewis' evidence is that it is difficult to determine with any accuracy if there is sufficient concentration of the drugs to be detected. This is largely so because the on-site oral fluid testing devices have not been independently verified.

[63] Dr Lewis contends that urine testing offers a much wider window of opportunity than oral fluid testing to identify recent drug use.

The risk of an individual being able to evade detection of drug use

[64] Given that Arnott's is not wishing to implement random testing, the likelihood of a worker bringing to work a fake sample of urine that is not affected by drugs is unlikely. Urine, when tested by collectors needs to be within a certain temperature range, and the incidence of workers at Arnott's carrying on their person a fake sample on the off-chance they might need it would be highly improbable.

[65] Dr Lewis makes criticism of the Australian Standard AS 4760 for oral fluid testing in that it states, *"The collector shall ensure that the oral cavity is free from foreign substances."*

The questions is put as to what should a collector do if the person undertaking the test does have food debris in their mouth – should they wash out their mouth or brush their teeth? These actions would, in Dr Lewis' view, remove drugs from the mouth and render the test void.

[66] It is contended that oral fluid testing can be adulterated by chewing gum, sucking on certain sweets, using a mouthwash, or sucking on citric acid drops. Taking one to two Sudafed tablets could dry the donor's mouth and reduce the amount of saliva. Dr Lewis posited that oral fluid testing would be more likely to produce false negatives than would urine testing.

Ability to detect use of a drug during the period of impairment

[67] Dr Lewis describes certain activities as being symptomatic of acute impairment, including obvious symptoms such as sleepiness, slurred speech, unsteady gait, slow to react, or conversely, agitation, overly alert, quick tempered, unusually loquacious, or aggressive and thus manifesting risky behaviour.

[68] When the acute impairment has subsided, regular or chronic users of drugs such as cannabis or methylamphetamine are likely to be impaired for days or more. A person affected by cannabis would be acutely impaired up to 6-7 hours after use. Urine tests would identify cannabis metabolites in this time, and depending on the frequency of use of the drug, for some time after.[15]

[69] Dr Lewis noted that the Australian Standard for oral fluid testing recommends a cut-off of 25 ug/L for cannabis (THC). It is his evidence that while the concentration of THC in the oral cavity through oral fluid testing is very high immediately after smoking cannabis, it declines very rapidly. After 1-2 hours it may well be below 5ug/L. Following the Australian Standards with a cut-off of 25 ug/L, oral fluid testing will fail to detect many recent users.[16]

Ability to detect a "hangover effect" from drug use

[70] The hangover effect is impairment of an individual at some time after the acute effects of the drug have worn off. Different drugs may produce different types of hangover effect. For example, some may give rise to drowsiness, anxiety and depression, or awakening tired and mind fogginess. These effects typically are demonstrated the morning following drug use, and are different from the acute effects of the drug. The use of benzodiazepines can result in earlier symptoms of the hangover effect. [17]

[71] Dr Lewis is confident that urine testing will identify cannabis use from the previous day, and will therefore identify potential hangover effects on the individual. Oral fluid testing is highly unlikely to detect the presence of THC the following day after smoking.

[72] Users of methylamphetamine are likely to suffer withdrawal effects, including irritability, anxiety and fatigue. Dr Lewis' evidence is that oral fluid testing is unlikely to detect methylamphetamine use from the previous day.

Ability to detect chronic or regular use of a drug

[73] Urine testing will most certainly detect regular or chronic use of cannabis. Oral fluid testing cannot provide this information, and a negative oral fluid test for cannabis does not preclude recent use.

[74] Frequent or chronic use of methylamphetamine will likely result in serious side effects including agitation, aggression, decreased motivation, disturbed sleep, depression and paranoia. Users present an extremely high risk of injury to themselves and to others within the workplace. Oral fluid testing may well detect very recent use, however once the levels fall below the prescribed cut-off limit, the individual might still be impaired, but produce a negative test.

The risk of false negative and false positive results, in particular whether urine testing has a lower incidence of 'false' results

[75] There are only four possibilities in toxicology screening; true positives, true negatives, false positives and false negatives. It is Dr Lewis' opinion that due to the length of time urine testing has been in place in Australia, the highly competitive testing services, the availability of proficiency programs, together with the requirement of on-site urine screening devices to comply with Australian Standards, there is a very low risk of both false positives and false negatives.

[76] Studies have shown that some on-site oral fluid testing devices have failed to identify drugs, especially THC.[18] As of December 2017 NATA has maintained its position of refusing to grant accreditation to on-site screening in oral fluid.

[77] Benzodiazepines are often prescribed for sleeping disorders or for anxiety. The class of drugs can have an impairing effect causing drowsiness, accentuated if taken in conjunction with alcohol. Urine testing detects the use of this class of drugs for some time after use whereas oral fluid testing is unsuitable. Benzodiazepines are highly bound to plasma proteins and therefore cannot readily pass from the blood (plasma) into oral fluid. Accordingly concentrations of these drugs are extremely low in saliva and are generally undetectable by existing routine procedures.

[78] It is Dr Lewis' contention that urine testing affords the comfort of a very low incidence of false positive and false negative results. The inability of oral fluid testing to accurately detect benzodiazepine use and recent cannabis use within the acute period of impairment would result in a high number of false negative results.

Whether urine testing puts Arnott's in a better position to ensure a safe work environment when it has reasonable cause to test or post an incident

[79] Dr Lewis' evidence is that urine testing will readily identify the use of drugs included in the Australian Standards AS/NZS 4308, and can also detect other drugs not so specified, including oxycodone, zolpidem, together with a number of synthetic cannabinoids and amphetamine types. Oral fluid testing cannot do the same.

Any specific limitations of each type of testing not already covered above

[80] Oral fluid testing will not detect oral use of cannabis when a person consumes cannabis by way of cakes or biscuits, for example. While the effect on the person in consuming the cannabis through a food would take a longer period of time, it will have a similar effect to having smoked it. It would not, however, be detected through oral fluid testing, but would be detected in urine testing.

Other factors Dr Lewis considers relevant

[81] Dr Lewis considers that urine testing allows for sequential testing if that is a path so taken, and can assist with identifying recent use, chronic use and cessation and withdrawal from regular drug use. He discredits employee group concerns that urine testing captures too much historical information relevant to an employee when it might not have anything to do with an employee's impairment on the day when the test is taken.

Other evidence of Dr Lewis

[82] In a report to Australian Mines and Metals Association (AMMA) Dr Lewis co-authored a report with Professor Macdonald Christie in December 2011.[19] The following table was produced:

Summarised Risks:[20]

Impairment risk	Risk during intoxication with low to moderate doses	Risk during intoxication with high doses	Hangover risk	Ongoing risk in chronic/ dependent users
Cannabis	**Moderate**	**Moderate to high**	**Low**	**Moderate**
Psychostimulant (methamphet., ecstasy cocaine)	**Low**	**Moderate to high**	**High to severe**	**High to severe**
Opioids	**Moderate to high**	**Severe**	**Low to moderate**	**High to severe**
Sedative benzodiazepines	**High to severe**	**Severe**	**Moderate to high**	**High to severe**

[83] Where the degree of risk is measured and named such as Low, Moderate, Severe etc., the report indicates the following parity when compared with blood alcohol concentration:[21]

Low (but not zero):	BAC between 0.02 and less than 0.05 (except for young, inexperienced drivers and the aged)
Moderate:	BAC between 0.05 and 0.08 (up to 3-fold increase in accident causation)
High:	BAC between 0.08 and 0.15 (up to 20-fold)
Severe:	BAC above 0.15 (approximately 50-fold at 0.18).

[84] Dr Lewis produced the following table demonstrating that oral fluid testing is comparable to urine testing for detection of risk of acute impairment for most drugs except cannabis and benzodiazepines. Where the areas are shaded they represent a deficiency in oral fluid testing when compared to urine testing:

Oral Fluid:[22]

Impairment Category Drug class	During intoxication with low to moderate dose	During intoxication with high dose	During Hangover related impairment	Ongoing impairment in chronic or dependent user
Cannabis	Detects some smokers but will often fail. Cannot detect swallowed cannabis	Will detect Some smokers but will often. fail. Cannot detect swallowed cannabis	Cannot detect this.	Will detect some but will often fail
Psychostimulants (methamphetamine cocaine)	Will almost always Detect	Will almost always Detect	Will detect some but will often fail	Will usually but not always detect
MDMA (ecstasy)	Will almost always detect	Will almost always detect	Will detect some but will often fail	Will usually but not always detect
Opioids	Will almost always detect	Will almost always detect	Will detect some but will often fail	Will usually but not always detect
Sedative benzodiazepines	Cannot readily detect this	Cannot readily detect this	Cannot readily detect this	Cannot readily detect this

[85] During the hearing, in examination-in-chief, Dr Lewis opined that the reason why police road-side testing is done by oral fluid testing is because it would be far too invasive to require a urine test. Requiring a blood test would be *"against the law and impractical"*, stated Dr Lewis. He considers that oral fluid testing is used by default.

[86] In cross-examination Dr Lewis was asked what the extent of the window of detection for urine analysis is. The following questions were put and answered:

> "MR REED: What was the longest - what's the extent of the window as far as you're concerned?---
>
> DR LEWIS: It is well accepted that chronic cannabis users, that is people who use every day or have used every day and many times a day for the last 10 years, can take two to three weeks to eliminate the last traces of the drug. The vast majority of drugs, such as cocaine are eliminated in one to two days. Opiates, two to three days, amphetamine perhaps two to four days. Benzodiazepines depending on the drug itself, could last about a week, and that depends on which Benzodiazepine it is.
>
> MR REED: Would you agree that with oral fluid testing, the detection period is in the past 36 to 48 hours, as an outside?
>
> DR LEWIS: Not by on-site testing, absolutely not.
>
> MR REED: What do you say the extent of the window is for oral fluid testing for on-site testing?
>
> MR LEWIS: Well, on-site testing is complicated because for some drugs, you can't find it after three or four hours. For example, Alprazolam - I'm sorry, Flunitrazepam which was given in a study by one the world's leading toxicologists, they could not find it within the first six hours of administration. It's very difficult to apportion a time frame. If we look at cannabis…
>
> MR LEWIS: Could I just stop you there. That drug that you just mentioned, that's one of the Diazepanes?
>
> MR LEWIS: Yes, yes.
>
> MR REED: Is it mentioned in any standard anywhere?
>
> MR LEWIS: It's mentioned in the urine standard; it's not mentioned in the oral fluid standard.
>
> MR REED: Do you have any knowledge or understanding or data as to the prevalence of use or misuse of that particular substance?
>
> MR LEWIS: Flunitrazepam? It was unfortunately named in the press as a date rape drug which I find particularly offensive. It has been used, it's a very powerful benzodiazepine. It is used therapeutically. It has been alleged to be used to spike people's drinks, but I am not aware that it's ever been found in a spiked drink. It is available therapeutically under the name of Hypnodorm. I think it's Hypnodorm, but I'm not aware of its prevalence or how frequently it's prescribed.
>
> MR REED: Or any data in relation to the use or misuse in the workforce?
>
> MR LEWIS: Not in Australia."[23]

[87] In cross-examination Dr Lewis stated that the hangover effect for ecstasy, or MDMA, lasts about five days after a person has had the dose. He described the hangover effect as extreme depression, slowness, the feeling of unwellness.[24] Dr Lewis is not aware of any specific research relevant to the percentage of those in the workforce using ecstasy.[25]

[88] Dr Lewis was shown a table within Dr Pidd's evidence [Table 7a at paragraph 103 of this decision] relevant to the detection times on certain drugs using oral fluid testing. Dr Lewis stated that he had not read all of the studies relied upon to produce the table, but he assumed that the lengthy detection times attributed to the oral fluid testing would be laboratory testing and not using on-site devices.[26] He stated that a person naïve to cannabis should eliminate a single cigarette from their system within 24 hours. A person who is an occasional user may take 2-4 days to eliminate it. Chronic users would tend to eliminate traces of use within 1-3 weeks.

[89] Dr Lewis stated that there are three kinds of effects of drug taking; the acute effects, the hangover effects and the long-term effects. In cross-examination it was put to him that with urine testing, the detection of the drug will cover periods when it would not affect workplace performance because the impairing effects of the drug had been spent at the time of testing. Dr Lewis agreed that the acute effects of the drug would be. He agreed that the hangover effects might also be spent, but not the long-term effects for regular and chronic users of the drug.

[90] It was acknowledged that urine testing would present a negative result to THC if the person had not smoked the drug previously, and the test was then undertaken within the first 4 hours. Dr Lewis' evidence is that it would be unlikely that a person who had never smoked cannabis before did partake on the first occasion within that window of time before work. The more likely scenario, Dr Lewis stated, is that a person will have smoked cannabis in the days or so beforehand and they would have residual levels of the drug. In the event the person had not smoked cannabis before and was tested within that 4 hour window, they would likely appear to show signs of intoxication from the drug that would be visible to others.[27]

[91] In cross-examination Dr Lewis discredited any assertion that oral fluid testing can accurately measure oral ingestion of cannabis. He cited the *Milman et al*[28] research as being able to only detect miniscule amounts of cannabis, at rates of less than 4 monograms per millilitre, as opposed to the Australian Standard of 25. It was suggested by Mr Reed that Arnott's would be able to set any level it wished, including any level greater than zero. Dr Lewis attested to that level not complying with the Australian Standard.[29]

Evidence of United Voice witness, Dr Ken Pidd

[92] United Voice called Dr Ken Pidd to give evidence. Dr Pidd is an Associate Professor and Deputy Director (Research) of the National Centre for Education and Training on Addiction (NCETA) Flinders University. NCETA is an alcohol and drug research centre

funded by the Australian Government Department of Health. Dr Pidd holds a PhD in Psychology.

[93] Dr Pidd has been employed by NCETA for 15 years and he has 18 years' experience working in the drug and alcohol field. Prior to that, Dr Pidd was working in the mining and construction industry in various trades, training and occupational health and safety roles. Dr Pidd's main role at NCETA is to manage and conduct relevant research, with a particular emphasis on identifying patterns of alcohol and drug consumption and related harm in the Australia workforce, and to translate research into practical harm reduction strategies.

[94] Dr Pidd has published numerous papers on the issue of alcohol and drug risk to workplace safety (including the use of drug testing to manage this risk) and has provided advice and consultancy on the issue to employer and employee groups and government agencies. Dr Pidd has previously appeared as a witness in several Fair Work Commission hearings concerning workplace drug testing and the management of alcohol and drug related risk to workplace safety and wellbeing.

[95] Arnott's objected to Dr Pidd's evidence being treated as that of an expert in toxicology or pharmacology on the basis that he is a psychologist and therefore not an expert in those fields.[30]

[96] United Voice submitted that Dr Pidd provides opinions on matters that he is directly able to, and by virtue of his knowledge and experience in the field is able to give direct evidence on issues such as NATA accreditation processes, data in relation to drug use in the workplace and the misuse of drugs. To the extent that Dr Pidd's evidence might bear upon conclusions drawn from a toxicological base, it was submitted Dr Pidd does so on the basis of his skills as a researcher, with his research supported by sources.[31]

[97] The parties agreed that the appropriate way of dealing with any issues about the facts or opinions expressed by Dr Pidd is by way of cross-examination and in closing submissions and that, with respect to Dr Pidd it was unnecessary to apply such appellation of 'expert witness' in the proceedings. The evidence is tested and the Commission will make an assessment of the evidence, its probative value and its weight and any other factors that arise out of that assessment at the end of the day.[32]

[98] The Act does not make specific provision for the introduction of expert evidence and the Commission is not bound by the rules of evidence.[33] Speaking of the evidence given by Dr Pidd at first instance in *Endeavour Energy* the Full Bench relevantly stated:

> "Section 590 of the Act provides that, except as otherwise provided, FWA may inform itself in relation to a matter before it in such manner as it considers appropriate. Section 591 provides that FWA is not bound by the rules of evidence. The Senior Deputy President had a discretion to admit the report and evidence of Dr Pidd as part of the consideration of the matters before him. This was appropriate given Dr Pidd's considerable experience and expertise and the relevance of the report and evidence to issues which were under consideration. In many

> respects it is not only qualified toxicologists who might provide useful evidence to the Tribunal in regard to issues relating to workplace policies for drug testing."[34]

[99] Accordingly it is not necessary to label Dr Pidd an 'expert witness'. The weight given by the Commission to Dr Pidd's evidence accords with his significant experience in the drug and alcohol field.

[100] It is Dr Pidd's evidence that whether an employer should adopt urine or oral fluid testing depends on the purpose of the test. For pre-employment testing, Dr Pidd considers it would be appropriate to attempt to detect relatively recent drug use (for example in the past week), and therefore urine testing would be appropriate due to the detection window available.

[101] Similarly, with a 'return-to-work' screening following an earlier positive test or a self-disclosed drug issue, a urine test is more appropriate. This is due to the longer window of detection, together with the test being undertaken as part of an overall return-to-work assessment.

[102] It is Dr Pidd's evidence that if the test is being undertaken to detect potential impairment, in that the person may be a risk to workplace safety in the case of an incident, or 'for cause' testing, oral fluid testing is the more appropriate testing methodology.

[103] Dr Pidd provided the following table:[35]

Table 7a: Detection times for most common drug types by test type [36]

Common Drug Types	Urinalysis	Oral Fluid/saliva
Meth/Amphetamine	Up to 3 days	Up to 48 hours
Benzodiazepines	Up to 14 days	Up to 36 hours
Occasional cannabis use	Up to 4 days	Up to 24 hours
Frequent cannabis use	Up to 30 days	Up to 48 hours[37]
Cocaine	Up 3 days	Up to 36 hours
Methadone	Up 3 days	Up to 36 hours
Opiates(Codeine, Morphine)	Up 3 days	Up to 48 hours

[104] Dr Pidd stated that of the drugs most commonly misused by Australian workers (cannabis, methamphetamine and prescribed opioids), oral fluid testing can reliably detect use that has occurred in the past 36-48 hours. This window is said to be sufficient to cover the period of the intoxication effects (acute symptoms) and post-intoxication effects (hangover effects) and when they are most likely to cause impairment.

[105] Dr Pidd stated that urine testing is unlikely to detect the use of cannabis within the first four hours after having been smoked, which is when the acute effects would be demonstrative. Oral fluid testing would detect this use.

[106] Dr Pidd agrees with Dr Lewis that neither urine nor oral fluid testing can be used as a definitive indicator of impairment. He does say, however, that oral fluid testing is likely to be a better indicator of potential impairment at the time of the test.

[107] The cut-off levels used within the Australian Standards for both urine and oral fluid testing are not set as an indicator of impairment or intoxication; rather they are set at levels to minimise the likelihood of false positives.

[108] Dr Pidd's evidence is that for most drugs the negative affect of intoxication on performance has largely dissipated within 5-6 hours of ceasing use, while the negative effects of hangover on performance have largely dissipated within 24 hours of ceasing use.[38]

[109] Oral fluid testing is less susceptible to specimen adulteration or substitution when compared with urine testing due to the oral fluid testing being directly observed. Clean urine samples can be obtained from family members or others and stored in a condom that is secreted in the donor's groin area so that it is kept at body temperature, necessary for a valid test.

[110] First instance urine testing might be affected by the donor consuming large amounts of water. While this dilution will be detected by laboratory testing, this would necessitate the collection and testing of an additional sample.

[111] Relevant to evidence that oral cannabis use can be masked by drinking beer and thereby producing a false negative result in an oral fluid test, Dr Pidd states that research relied on by Arnott's is far too old to have any value, and more recent research has demonstrated that commercially available adulterants such as common foods, beverages, food ingredients, cosmetics or mouthwash will not affect the results.

[112] As to whether oral fluid testing can detect recent oral ingestion of cannabis, Dr Pidd relies on research that states that the inactive metabolite THCCOOH can be detected. Some research indicates that oral fluid testing can detect THC metabolites from the oral consumption of medicinal cannabis,[39] and recent research indicating that oral fluid testing can detect the consumption of cannabis cakes or cookies.[40]

[113] Regarding methamphetamine use, the acute effects can last for 4-12 hours, while for chronic users the effects of withdrawal from chronic use can last up to 7-10 days. It is Dr Pidd's contention that oral fluid testing is more appropriate as it detects only up to 48 hours, when compared with urine testing of up to 3 days.

[114] Relevant to on-site screening devices, Dr Pidd acknowledges that a urine analysis on-site will typically be done with a single test. For oral fluid testing, in order to screen for a full range of drugs, it may be necessary to have more than one screening device; that is, two or more oral fluid tests on-site. Dr Pidd refutes research that claims that oral fluid testing is unable to detect the recent use of cannabis within a sample.[41]

[115] While NATA's decision to cease accreditation to facilities for on-site initial oral fluid testing covered by AS 4760 Section 3, Dr Pidd explained the specific reasons for this are:

- There are no clearly defined cut-offs concentrations for devices published in AS4760:2006 as there are for urine devices in AS/NZS 4308:2008;
- Target values are only described as "nominated" target values and are very wide. The lowest concentration can be anything from the value described in Table 5.1 of AS 4760:2006.
- There is no definitive criteria for what constitutes "fit for purpose" as described in AS 4760:2006;
- There are no acceptance criteria for what constitutes a methodology or acceptance criteria for verification of devices as published in Appendix B of AS/NZS 4308:2008;
- There is no recognised expert technical group available for consultation for oral fluid drug testing e.g. the AACB Toxicology Working Party for urine toxicology;
- Due to the lack of a recognised technical expert group there has been inconsistency in the review of data collected at NATA assessments;
- The expertise of NATA technical assessors has been challenged in relation to this testing due to a lack of an expert technical group;
- There is concern as to the stability of some drug classes during the testing process, especially THC, which is compounded by the allowance of "nominated" targets;
- The allowance of a target screening concentrations at a level at or above the confirmatory concentration may impact on the ability of confirmatory laboratories to reproduce a non-negative screening result due to loss of drug during transport and handling.

[116] Dr Pidd's evidence is that the lack of NATA accreditation for on-site oral fluid test devices has not resulted in safety sensitive industries such as aviation or police roadside testing ceasing to use these devices to assess impairment risk.

[117] Dr Pidd provided evidence as to the profile or characteristics of a 'typical' cannabis or methamphetamine user who is gainfully employed. His evidence, based on the 2016 National Drug Strategy Household (NDSHS) data indicates that employed Australians with the highest prevalence of recent cannabis use (at least once in the past 12 months) are typically male, aged 20-29 years, are employed as tradespersons or in trade related roles and work in either

the construction, hospitality or IT/communications industries. Employed Australians with the highest prevalence of meth/amphetamine use (at least once in the past 12 months) are typically male, aged 20-29 years, are employed as tradespersons or in trade related roles and work in either the agricultural, hospitality or utilities industries.

[118] As to the prevalence of the use of drugs between unemployed and employed Australians, Dr Pidd's evidence can be taken as follows:

	Employed	**Unemployed**
Cannabis use	**%**	**%**
At least once in the last 12 months	12.2	18.6
At least once in the last month	6.4	
At least once a week	3.9	9.6
Daily	1.4	4.2
Methamphetamine use		
At least once in the last 12 months	1.5	4.6
At least once in the last month	0.6	
At least once per week	0.25	1.6
Daily	0.06	0.5
Benzodiazepine use		
At least once in the last 12 months	1.8	
At least once in the last month	0.6	
Opioids use		
At least once in the last 12 months	3.4	
At least once in the last month	1.6	

[119] Dr Pidd acknowledged that the ability of on-site oral fluid testing to detect the use of benzodiazepine depends on the quality of the test device and process. He stated that laboratory screening can reliably and accurately detect these drugs.

[120] Regarding the hangover effects of cannabis use, Dr Pidd stated that the research demonstrates that the hangover effect of cannabis generally lasts up to 24 hours after the use ceases. Other research suggests that meaningful performance deficits are unlikely as early as the morning after smoking cannabis. If oral fluid testing can capture the 24 hour period of the hangover effect, it is Dr Pidd's evidence that it is unnecessary to capture the extended detection period that urine analysis provides for.

[121] There is less research evidence on the hangover effects of methamphetamine use. Dr Pidd stated that the intoxicating effects typically last for 4-12 hours while fatigue and

irritability can last for up to 24 hours after ceasing use for occasional users. Chronic users are likely to suffer withdrawal effects for up to 7-10 days, although Dr Pidd opines that chronic users are less likely to be gainfully employed due to their behaviour and cognitive performance.

[122] In questioning from the Commission, Dr Pidd was asked his views on the hangover effect of a person who smoked methamphetamine on say, a Saturday night and presented for work the following Monday. Dr Pidd opined that the user would be fatigued.[42]

[123] Dr Pidd's evidence is that it is his understanding that a person who has taken methamphetamine can be fatigued for up to 36 hours after using that particular drug. Oral fluid testing can detect it for up to 48 hours. In questioning from the Commission, Dr Pidd agreed that the clinical tests relevant to the 36 hours were undertaken under laboratory control. A controlled dose is administered to the person undertaking the study and the person's performance around cognitive and physical abilities is measured. Dr Pidd was unsure if the subject was allowed to sleep during the 36 hours of the study.[43]

[124] Dr Pidd's evidence is that it is unnecessary to focus inquiries on chronic drug use within the workforce, as opposed to the much larger proportions of Australian workers who use drugs occasionally. It is the larger numbers of occasional drug users who represent the largest overall drug related risk to safety.

[125] It is Dr Pidd's contention that an employer such as Arnott's should not focus on identifying chronic or frequent users of drugs, and instead adopt contemporary good practice approaches to managing drug and alcohol related risk in the workplace by being proactive and adopting a broader primary prevention approach.

[126] In cross-examination Dr Pidd agreed the Arnott's workforce is typically representative of the wider community, and if a small percentage of people in the wider community use drugs frequently, that would be a small percentage of regular drug users within the Arnott's workforce.[44]

[127] Dr Pidd disagreed in cross-examination that oral fluid testing cannot accurately detect the use of benzodiazepines. When asked by the Commission if he agreed with Dr Lewis that oral fluid testing might detect it at only very low levels, Dr Pidd agreed.[45] Dr Pidd stated that to obtain benzodiazepines is very difficult and the prevalence of it within workplaces is very low.

[128] Dr Pidd agreed in cross-examination that the likelihood of a person carrying with them a clean sample of urine in the absence of random testing was low.[46] Similarly, he agreed that it would be unlikely in the absence of random testing that a worker would drink an excessive amount of water to dilute their sample.

[129] Relevant to the fact that on-site oral fluid testing devices are not NATA accredited, Dr Pidd agreed with the following question put in cross-examination: *"...You accept that for an employer trying to make defensible business decisions some of which may have significant implications for employees, it is highly desirable that there be an established external standard by which the processes take place. Do you agree with that?"*[47]

Contested evidence between Dr Lewis and Dr Pidd

[130] Following closing oral submissions of the parties before the Commission on 6 March 2018, and largely to do with the evidence of Dr Pidd at Table 7a at [103], supplementary statements were filed on behalf of Dr Lewis and Dr Pidd respectively. Dr Lewis' statement is produced below:

> **"Response from Dr Lewis to queries raised on 6 March 2017**
>
> **1. Are the detection times in Table 7A of Dr Pidd's statement based on levels that are detectable under the Australian Standards (AS4308 and AS4760)?**
>
> No, Table 7A is not restricted to timeframes within which a drug would be detectable under AS4308 or AS4760. The timeframes are based on using sensitive testing devices in a laboratory environment.
>
> - Many of the levels detectable in the timeframes provided for in Table 7A would not constitute a non-negative result under the cut-off levels in either AS4308 or AS4760 and would show no reading on an on-site test.
>
> - Dr Pidd cites Verstraete (2004), Odell et al (2015) and Andås et al (Therapeutic Drug Monitoring 2014). Relevantly:
>
> - Verstraete - for the detection of drugs of abuse in oral fluid, Verstraete quoted cutoffs of 2.5 ng/mL for methylamphetamine, 0.5 ng/mL for THC and 1 ng/mL for cocaine. These values are far lower than cutoffs in AS 4760. Verstraete made no mention of on-site devices.
>
> - Odell - used laboratory-based analytical instrumentation and a cutoff of 1 ng/mL for THC (cf AS 4760 of 25 ng/mL). The conclusion was that *"The oral fluid profile was largely as expected with most observations being below 10 ng/mL after first 3.5 hrs."* No on-site device would detect such low levels. As these were chronic users and would be deemed negative by an on-site test half-way through the period of acute impairment (~ 7 hrs), it follows that infrequent or even frequent users (i.e. not chronic users), would certainly not record a non-negative response within the period of acute impairment.
>
> - Andås - used a cutoff of 0.3 ng/mL for THC in contrast to the Australian Standard of 25 ng/mL.

2. Do the detection times in Table 7A of Dr Pidd's statement refer to detection by way of an on-site test?

- The detection times referred to in Table 7A (and the studies referenced) relate to detection by way of laboratory testing using sensitive analytical instrumentation using very low cut offs, which in general are 1/20th -1/100th of the levels in AS4760.

- The detection times are not possible with on-site testing devices."

[131] Dr Pidd's statement is produced below:

"**Part 1**

Most of the evidence concerning detection times comes from international research that tends to use the Substance Abuse and Mental Health Services Administration (SAMHSA) mandated cut off levels. As seen in the tables below, for most drugs these cut off levels are the same or similar to AS 4760-2006 levels. The only exception to this is oral fluid detection of cannabis where AS 4760 levels are higher than SAMHSA levels, and urinalysis detection of opiates where AS NZS 4308-2008 levels are much lower than SAMHSA levels. Table 7a includes a review (Dyer & Wilkinson, 2008) of 14 studies that examined detection times and the cannabis cut off levels used for oral fluid testing in these studies ranged from 1 µg/L to 10 µg/L, which is less than AS 4760-2006 levels.

Oral Fluid

	Onsite screen		Lab confirmation	
	SAMHSA	AS 4760-2006	SAMHSA	AS 4760-2006
Cannabis	4 µg/L	25 µg/L	2 µg/L	10 µg/L
Opiates	40 µg/L	50 µg/L	40 µg/L	25 µg/L
Meth/amphetamines	50 µg/L	50 µg/L	50 µg/L	25 µg/L

Urine

	Onsite screen		Lab confirmation	
	SAMHSA	AS 4760-2006	SAMHSA	AS 4760-2006
Cannabis	50 µg/L	50 µg/L	15 µg/L	15 µg/L
Opiates	2000µg/L	300 µg/L	2000 µg/L	300 µg/L
Meth/amphetamines	500 µg/L	300 µg/L	250 µg/L	150 µg/L

Part 2

In general, neither onsite oral fluid nor urine screening devices produce a specific reading. Less expensive onsite devices will either provide a line or colour indicator of a positive or negative test result. More expensive oral fluid onsite devices (such as the Drager 5000, the Druglixer LE5 and the Medax Saliva Screencan) provide a qualitative reading of'positive' or 'negative' which removes the issue of subjective interpretation of colour or line indicators.

In general these devices are set to a cut off levels consistent with AS 4760-2006, however as cut off levels vary internationally they are available with much lower cannabis cut off levels.

The Drager 5000, which is used for police roadside testing can be adjusted to a cut off level of 5 µg/L for cannabis, which I believe is the current cut off level used in roadside testing."

Summary of Arnott's outline of submissions

[132] Arnott's submitted that the answer to the question put to the Commission for arbitration ought to be 'Yes' for the following reasons:

"(a) The Virginia site is a high risk work environment and the risk posed by a worker impaired by drugs is significant and could result in a serious and potentially fatal incident. Arnott's has a duty under the *Work Health and Safety 2011* (Qld) (WHS Act) to ensure the safety of its workers, so far as reasonably practicable and this includes protecting workers from the risk of drug impairment. Accordingly, a drug testing regime is required at the Virginia site.

(b) Arnott's has selected a reasonable and just testing methodology for drugs. It conducted a thorough analysis of available information and advice from experts as to which testing methodology it should adopt. Based on that information, Arnott's determined that urine testing should be preferred because:

(i) urine testing is more accurate and reliable than oral testing;

(ii) urine testing can screen for a broader range of drugs than oral testing;

(iii) urine testing can identify persons who may be impaired by a 'hangover effect' from drug use and persons who are chronic and regular drug users;

(iv) to be effective, oral testing must occur close in time to drug use which may not be suitable or possible in all cases; and

(v) there are no oral testing devices accredited by the National Association of Testing Authorities due to deficiencies with the devices.

(c) This approach is supported by the leading expert in Australia in respect of drug testing methods, Dr John Lewis, who conducted a site visit at Virginia and concluded that urine testing will provide Arnott's with a better ability to manage risk.

(d) The AOD Policy is fair because it does not involve random testing, has a commitment to providing education and support to workers dealing with drug or alcohol issues and adequately balances worker privacy against the high risk manufacturing environment at Virginia.

Arnott's will conduct a six month self-testing trial whereby oral test kits will be available to workers at Virginia to screen for drugs before commencing work. Workers who test positive will be permitted to take leave without pay and are not required to disclose the result."

[133] Arnott's does not have an existing alcohol and drug testing policy. Due to a series of drug and alcohol related issues at the Virginia site and the results of an external audit, the ADP has been identified as a critical safety policy and Arnott's wishes to introduce it as soon as possible.

[134] Arnott's submitted that following a safety incident, the ADP sets out that testing will only be required following a high or extreme (actual or potential) incident, as classified under the existing Arnott's Risk Matrix, or an incident reported to a regulator or other external agency.

[135] In relation to reasonable cause, the ADP requires a competent leader to determine that someone is at risk of being impaired based on specific observations, preferably by more than one person. Any decision on reasonable cause is required to be made in consultation with Arnott's human resources and legal teams if possible.

[136] Following a decision approximately two years ago by the Arnott's management team that the risk of workers being affected by drugs and alcohol needed to be addressed, Arnott's established a 'Governance Team' to develop the ADP. The Governance Team conducted research, obtained expert advice and considered broader industry practices to determine the testing method that would put Arnott's in the best position to ensure the safety of its workers.

[137] Arnott's submitted that the Governance Team obtained advice from many sources and made a decision that the ADP would require urine testing for drugs given the work is performed in a high risk manufacturing environment.

[138] Arnott's submitted that its selection of urine testing is supported by the expert opinion of Dr Lewis, and in summary his opinion is that urine testing is the most suitable means of drug testing at the Virginia site. It is Dr Lewis' expert opinion that urine analysis places Arnott's in a better position than if it were to rely on oral fluid testing to minimise risks to workers arising from drug impairment.

[139] Dr Lewis visited the Virginia site and observed a high risk environment which informed his opinion in recommending urine testing. He noted the following:

> "…wet, slippery areas where employees clean out equipment, ladders, dough pits for mixing ingredients, where workers could fall in if affected by drugs. I also noted pinch points on conveyor belts where workers could trap their fingers. Other areas of potential hazard were electrical boxes and areas where dough gets stuck, requiring workers to extricate the sticking material".

[140] Dr Lewis explained in his report that the reasons for preferring urine testing are as follows:

> " (a) Urine testing is a more accurate and reliable testing method than oral testing.

(b) Urine testing can identify a broader range of drugs than oral testing (including synthetic drugs). For example, oral testing has a lack of sensitivity in identifying recent drug use, cannot identify the use of cannabis in cakes or cannot readily identify benzodiazepine use.

(c) Urine testing is more likely to detect drug use during the period of impairment once the 'acute' phase of impairment has subsided. This is particularly important because '[f]ollowing regular or chronic use of some drugs, for example, cannabis or methylamphetamine, a person is likely to be impaired for days or more... As urine can identify many drugs days after use and especially following regular use, it is a more appropriate matrix than oral fluid as the latter may not be able to identify some drugs even hours after use.'

(d) Oral testing is more likely to produce false negatives than urine testing.

(e) Urine testing better identifies the risk of a hangover effect (i.e. the impacts on a person's cognitive ability the day or days after using a drug) from drug use.

(f) Urine testing better identifies chronic drug use which presents a high risk of extended impairment. In relation to chronic use of methylamphetamine, Dr Lewis noted:

> "Frequent or chronic use of methylamphetamine, commonly referred to as "crystal meth", is extremely dangerous with serious side effects, including agitation, aggression, decreased motivation, disturbed sleep, depression and paranoia. Users of methylamphetamine present an extremely high risk of injury to themselves and to others within the workforce…although oral fluid can detect methylamphetamine use, once blood levels fall and hence, oral fluid levels, then a person can still be quite impaired despite a negative test."

(g) There is no independent assessment of the accuracy and reliability of on-site drug testing devices."

[141] Arnott's further submitted that urine testing is not prevented by any contract, legislation or industrial instrument including the Agreement, and that selecting urine testing as a testing method is a reasonable exercise of Arnott's right to manage its business in the way it sees fit. Arnott's relied on *Australian Federated Union of Locomotive Enginemen v State Rail Authority of New South Wales*[48] and submitted that the Commission should only interfere in management decisions where it results in an unjust or unreasonable outcome for employees.

[142] Arnott's submitted that testing on reasonable cause or post-incident is significantly less invasive than random testing, and that given Arnott's is only proposing to test workers once there is cause to do so, not only is it just and reasonable to select the most accurate and reliable testing method, there is a duty to do so under WHS Act to ensure the safety of their workers.

[143] Arnott's referred to *Endeavour Energy v CEPU* [49] and submitted that the decision in this case must be distinguished from the Arnott's ADP on two grounds:

> "(a) Arnott's does not propose to conduct random testing which it accepts may be invasive. Having regard to its high risk work environment, Arnott's will only test workers following a serious safety incident, after a previous positive test or if reasonable cause is identified.
>
> (b) The Arnott's AOD Policy emphasises the importance of education and support for workers who may be suffering from alcohol or drug issues, including that outcomes following a positive result may be counselling, support from the Employee Assistance Program and the development of a return to work program. Arnott's will also provide training in the AOD Policy prior to its commencement designed to encourage workers to seek help for any drug or alcohol issues they may be facing. Arnott's has made arrangements for additional resources at its Virginia site to support workers in accessing any help required."

[144] Arnott's adopted the approach taken in *Construction, Forestry, Mining and Energy Union v Port Kembla Coal Terminal Limited ('CFMEU v PKCT')*[50] in arguing that its decision to conduct urine testing is fair and reasonable for reasons including:

> "(a) Given Arnott's is not proposing to conduct random testing, it is already less invasive than the random process in the PKCT case which was accepted as reasonable by the Full Bench.
>
> (b) Like the PKCT policy, the Arnott's AOD Policy has a focus on employee wellbeing and education. While non-negative results could lead to disciplinary action, other outcomes are available
>
> (c) The Virginia site is a high risk manufacturing environment. In the same way that the PKCT high risk environment meant that privacy must 'give way' to managing safety, so do the Virginia site conditions.
>
> (d) Arnott's will provide a trial of oral self-testing to enable workers to test for drugs prior to commencing a shift. This is not dissimilar to the dual methods of testing in the PKCT Case which were viewed favourably by the Commission however, the Arnott's proposal is more favourable to workers as the results do not need to be disclosed to it."

Arnott's closing submissions

[145] In oral closing submissions, Arnott's submitted that the weight of evidence from both sides is supportive of urine testing as the best method for onsite drug testing for the purposes that Arnott's is testing for.

[146] It was contended that the purpose of the ADP is about identifying employees who use drugs. Arnott's referred to the three different phases of impairment associated with drug use as alluded to in Dr Lewis's evidence, being the acute effect, which are the immediate pharmacological effects, the hangover effect and the longer-term effect. The longer-term effect or even the hangover effect, depending on time frames, may or may not be picked up by either urine analysis or oral fluid testing. However, given that urine testing has a longer window, it is more likely to pick it up, and the purpose of the test is to give Arnott's the best chance of identifying drug use.

[147] While there might be some difference in relation to the evidence between Dr Lewis and Dr Pidd as to the likely length of the hangover effect for some drugs, both witnesses agree that if the objective is to manage risk, then drug users who take drugs either in the workplace or in their private lives do give rise to risk. Arnott's say the purpose of the policy is to manage that risk. The ADP is incidentally intended to identify the likelihood of actual impairment and a drug test at any time does not reliably indicate either the existence or the level of the impairment.

[148] Arnott's submitted that once Dr Pidd had a better understanding of the purpose of the ADP, he accepted that the purpose was not about immediate or acute impairment, but rather about management of risk and the identification of how the use of drugs by employees at any time might impact on that risk. Dr Pidd agreed that if that was what Arnott's was seeking to do, urine testing was the best method to achieve that objective. Dr Pidd said the following:

> "If the purpose of the policy is to detect employees who had abused drugs in the workplace then yes, I'd agree. Go for urine analysis."[51]

[149] The consensus of the opinions of Dr Lewis and Dr Pidd is that benzodiazepines would be very difficult to be picked up by oral testing.

[150] Arnott's acknowledged that a person who has never used cannabis before and is tested by urine analysis within four hours of using it is not going to be detected, but it would be detected in an oral fluid test.[52] It is Arnott's contention that the scenario put would be the only circumstance where an oral fluid test would lead to a positive result where a urine test would not. It was contended that the scenario is an unlikely one. It was submitted, however, that in the event the first-time user did partake in using cannabis for the first time within four hours of commencing work, the acute phase would be identifiable to peers and any testing could be delayed or modified to take that into account.

[151] Relevant to the use of ecstasy, Arnott's submitted that it is uncontested that the hangover effects of the use of this drug is that they can last for up to five days.

[152] A number of drug and alcohol policies of various organisations, sourced by Arnott's and said to be current policies were admitted into evidence. Helpfully a summary was provided relevant to the type of testing undertaken at each workplace and under which circumstances. The summary is below:

Company	Industry	Policy	Summary
Qantas Airways Ltd	Aviation	Alcohol and Other Drugs Program – Drug and Alcohol Management Plan	The documents provided show that Qantas, Jetstar and other associated entities will conduct urine drug testing for (a) Pre-employment (b) Show cause (c) Post incident (d) Return to work

			(e) Follow up testing UV provided a version of a policy that explains Qantas uses oral testing for random testing.
Coca-Cola Amital (CCA)	Manufacturing - beverage	Drug and Alcohol Policy (May 2013)	CCA may require workers to undergo drug testing the following circumstances: (a) Post incident or near-miss (b) Casual based (c) Targeted testing (d) Random testing Testing may be done by way of a breath test, urine sample, oral swab and blood test.
Wesfarmers Chemicals Energy and Fertilisers	Manufacturing & supplying of chemicals, energy and fertilisers	WesCEF Drug and Alcohol Procedure	Drug testing may occur: (a) Pre-employment (b) As part of a periodic medical assessment (c) Random testing and mass screening (d) For cause (e) Self-initiated testing All drug testing is done using a urine test method, except for random testing and blanket testing, where personnel have the option of selecting either a mouth swab or urine test method for initial drug screening. All secondary testing is done using a urine test method.
Royal Flying Doctor Service	Aeromedical	Drug and Alcohol Management Policy	Drug testing will be conducted in the following circumstances: (a) Pre-employment (b) Post-accident or serious incident (c) On reasonable suspicion (d) On return to safety-sensitive aviation activity work (e) Random testing Drug testing done under this program will be conducted as follows: (a) For oral fluid testing for drugs – in accordance with AS 4760 (b) For urine testing for drugs – in accordance with AS/NZS 4308
North Queensland Airports (NQA)	Aviation	Drug & Alcohol Management Plan (DAMP)	Drug testing is conducted in the following circumstances: (a) Pre-employment or pre-deployment (b) Post-accident or incident (c) Reasonable suspicion (d) Prior to return to work following suspension

			(e) Randomly The testing must be carried out in accordance with: (a) Urine testing in accordance with AS/NZS 4308:2001 (b) Oral fluid testing in accordance with AS 4760:2006
Australian Rail Track Corporation	Rail	Drugs and Alcohol Policy WHS-PR-422	Workers may be required to take a drug test at any time before starting work and while at work, including: (a) As part of pre-employment and ongoing health assessments (b) At the specific request of an ARTC Manager or Authorised Testing Officer: - On the basis of a reasonable concern, or - In the event of an incident, including a collision or derailment of rolling stock, a suspected safe-working irregularity, motor vehicle accident or any significant incident - On a random basis as part of a broader testing regime Urine drug tests may be conducted at any time, whether or not a saliva screen has been taken.

[153] Relevant to the examples of drug and alcohol policies tendered and admitted into evidence from United Voice, Arnott's brings to the Commission's attention that those organisations are predominantly Queensland government-owned corporations. It is Arnott's submission that those organisations have made the decision to allow oral fluid testing only, and perhaps there might be an overarching policy or other reason behind the decision to do so.

[154] Relevant to the changes made to the ADP as a result of the first two days of hearing, Arnott's submitted that the changes were beneficial to employees, and accordingly, it would not reopen an obligation for consultation to employees. If the Commission approved of the ADP it was submitted that there would need to be a process of communication to affected workers.

Summary of United Voice outline of submissions

[155] United Voice submitted that although the question for arbitration is expressed rather blandly, and on its face would appear to unduly favour management prerogative, the way in which the dispute has been approached to date leads to the conclusion that the question is to treated in the way that it has been treated in similar cases in the past, by an application of the principles set out the *XPT* case.[53]

[156] On that basis, United Voice submitted that in circumstances where Arnott's proposes urine testing and United Voice proposes oral fluid testing, the principle issue becomes which testing method is to be adopted having regard to the purpose and aims of the ADP.[54]

[157] The stated aim of the ADP is to minimise the risks posed to workplace safety by the misuse of alcohol and drugs and to offer appropriate support to an employee who may experience drug or alcohol dependency issues.

[158] United Voice submitted that there is no doubt that an employer has a statutory duty to take all reasonable steps to protect the health and safety of its employees and a common law duty to take reasonable steps to avoid foreseeable risks of injury to those workers. This is reflected in the ADP. It is against those duties and the stated policy that the relative efficacy of the competing testing methods must be measured. United Voice contended it is therefore logical to give considerable weight to the issue of impairment at work as a result of drug use in considering which testing method should be adopted.[55]

[159] United Voice submitted that Arnott's submission that urine testing is more accurate should be rejected. It was contended that the evidence attacking the accuracy of on-site oral fluid testing devices relies on older data and should be treated with caution. Dr Pidd's evidence is that there are reliable oral fluid testing devices available.[56]

[160] With respect to the range of drugs detected, United Voice contended that the drugs most likely to be used by workers are cannabis, amphetamines (including methylamphetamine or ice), opioids, benzodiazepines and cocaine, which are all detectable using oral fluid testing.

[161] Arnott's suggested that urine testing may also detect synthetic drugs but the range and type is not satisfactorily identified and no evidence is offered as to the likelihood of consumption by the relevant workforce of such substances.

[162] United Voice submitted oral fluid has a clear advantage over urine testing with respect to detection during periods of impairment. Impairment from drug use is typically for a limited time prior to testing, even for chronic users, and oral fluid testing is better suited to identifying that likely impairment. By contrast, it was submitted urine testing detects drug use up to several days before testing in circumstances when the time of usage cannot be identified. This type of testing is therefore particularly unsuited to detecting likely impairment and the risks to workplace safety posed by that impairment.

[163] The identification of drug use by urine testing has the added disadvantages that a worker's privacy may be invaded, and that the test results may be used unfairly in the disciplinary context.

[164] United Voice contended that oral fluid testing is better equipped to detect potential impairment from prior cannabis and methamphetamine use. In the case of cannabis, oral fluid testing detects THC (the active ingredient in cannabis) whereas urine analysis does not. As

pointed out by Dr Pidd, the Australian police services prefer oral fluid drug testing devices for roadside breath testing.[57] Oral fluid testing is also able to detect the consumption of cannabis in cakes or cookies.[58]

[165] With respect to hangover effects, United Voice submitted neither urine testing nor oral fluid testing can detect impairment due to such hangover effects. As to chronic or regular drug use, it was submitted it is axiomatic that chronicity would not be revealed by a single test but rather requires a number of sequential tests before a conclusion can be drawn.

[166] With respect to the problems with NATA accreditation, United Voice contended that those problems related to the composition of AS4760-2006, rather than the accuracy or reliability of the testing devices.[59]

[167] United Voice submitted that urine testing is clearly more invasive of privacy and it is appropriate for the Commission to give weight to privacy concerns in weighing the factors relevant to its determination.[60] Further the detrimental effects of a non-negative drug test using the urine testing method may well go beyond an invasion of privacy and result in an employee being terminated as a result of a non-negative urine test in circumstances where there may be considerable uncertainty as to whether the employee was in fact impaired at the time of testing.[61]

[168] United Voice submitted the decision in *CFMEU v PKCT*[62] should be treated with caution. The conclusion reached by the Full Bench in that case should be seen in the context of the circumstances of the case, including the use there of random drug testing, the conclusion that the purpose of random drug testing was deterrence, and the proposal to use both urine testing and oral fluid testing methods. Those different circumstances render the decision in the *CFMEU v PKCT* of little assistance to the Commission in the present case.

[169] United Voice submitted the question for arbitration should be answered "*No*". It would not be fair and reasonable for Arnott's to deploy a urine drug testing regime in the proposed circumstances as there is available a superior alternative, namely oral fluid testing, which would better achieve the purposes the ADP and which would better protect the interests of the employees.

United Voice closing submissions

[170] It was submitted that the task for the Commission is to determine which of the competing testing methods best achieves the aims and purpose of the ADP. It was submitted that Arnott's might have sought to enlarge the aim of the policy to include the detection of long-term drug users. Minimising the risks posed to workplace safety by the misuse of alcohol and drugs should be the focus of the Commission's attention.

[171] United Voice accepts that Arnott's does not seek to interfere, while not condoning, drug use by workers outside of the workplace, provided that drug use doesn't impinge upon the fitness for work when the employee returns to work. It is the contention of the union that

the issue of impairment then becomes a paramount concern. There is a necessity, it is put, to look at the competing drug testing methods as a primary consideration to determine which of those has a better chance of measuring the risk or the potential risk of impairment of an employee in the workplace.

[172] United Voice accepts that urine testing is the most appropriate method to be used for pre-employment testing and return to work testing. Arnott's desire on these two occasions is not opposed.

[173] United Voice accepts that Arnott's has a statutory duty to take all reasonable steps to protect the health and safety of workers on its site. It also has a common law duty to take reasonable steps to avoid foreseeable risks of injuries to workers. Those duties involve an obligation to ensure, as far as possible, that workers are not impaired in the performance of their work by the use of drugs, such that their impaired state creates a risk to themselves or other workers or other persons in the workplace.

[174] It was submitted that the Commission ought to accept that there are accurate on-site oral fluid testing devices available for the purposes of measuring and detecting drug use. Other employers use them.

[175] Relevant to the detection of cannabis use, it was submitted that the acute effects last four to seven hours. The hangover effects last for up to 24 hours, during which time an oral fluid test would detect the use of the drug. Urine testing extends the period well beyond that, and for an occasional user, between 2-4 days.

[176] On the improvements made by Arnott's relevant to the privacy of undertaking a urine test, it is submitted by United Voice that this does not address the concerns regarding the privacy of an individual relevant to their private activities (of drug taking) outside of work hours where the effects of the drug taking have passed a period of time where there are no longer any impairing effects, and it does not present as a safety related issue in the workplace.

[177] It is submitted that this remains a viable and important privacy concern. Private information of the worker about a worker's activities outside of working hours is unnecessarily revealed. Urine testing has the capacity to produce unfair disciplinary results for employees.

[178] United Voice also provided information of a number of drug and alcohol policies of various organisations where oral fluid testing is utilised. An overview of some of the policies provided by United Voice is below: [63]

Description	Date
Qantas: Drug and Alcohol Management Plan (v4)	August 2015
Trility: Drugs and Alcohol in the Workplace	December 2017
Scania: Drug and Alcohol Policy	December 2014

CS Energy: Conducting Alcohol and Other Drug Tests Procedure And Managing Alcohol and Other Drugs Procedure	August 2009 and July 2014
Energex: Management of Alcohol and Other Drugs	February 2015
Queensland Rail Rollingstock and Operations Enterprise Agreement 2016	April 2016
Stanwell: Alcohol and other Drugs Management	August 2013
Ergon Energy: Drug and Alcohol Policy AND Drug and Alcohol Policy Business Rules	Undated
Toll: Drug and Alcohol Policy and Procedures	Undated
Linfox: Drug and Alcohol Policy	April 2012

[179] It was submitted that the widespread use of oral fluid testing means it must be regarded by all of the companies which use it as an appropriate screening test procedure which produces an appropriate level of non-negative tests, otherwise 'they wouldn't use them'. In questioning from the Commission as to whether that is the only conclusion that can be drawn when, for example, it may be that the employer wishes to implement urine testing but can't reach agreement with employees and relevant unions, United Voice submitted:

> "MR REED: What's continually pointed out by those at the other end of the Bar table is that employers - and these are all safety-sensitive industries of course that we're referring to here - the employers have statutory duties and also common law duties to ensure as far as possible workplace health and safety. And if an employer is going to consistently with that duty put their hands on their hearts and say that "Oh well, consistently with that duty we've adopted a proper policy which we don't really believe in". That's a difficult proposition to suggest, in my respectful submission. That would be tantamount to acting completely without integrity.
>
> The fact that they've adopted these policies and in a public way and have told their employees that "This is how we operate" can't give rise, in my respectful submission, to an inference that this is somehow some sort of sham arrangement which they've arrived at as a result of some sort of compromise which they don't accept effectively. There are ways of dealing with disputes about that sort of matter and we don't shy away from the fact that matters of workplace health and safety are extremely important matters and issues of safety concerned with possible impairment as a result of drug use are extremely important matters.
>
> And for an employer to adopt a policy to deal with those things, the employer must be adopting a policy which it believes can address those issues in a satisfactory way. That is the preferable inference, in my respectful submission, to draw from the way in which those policies are structured. There's no concern shown or evident from any of those policies about the capacity of oral fluid testing devices or the adequacy of the target concentrations in AS4760 for oral fluid. In the Qantas document which is part - the one that's included at tab 1 of United Voice's bundle, and remembering this refers to CASA the overarching body with safety concerns in the air navigation industry, at page 12 at paragraph 9.4(b):
>
> > *"CASA oral fluid drug testing will use thresholds outlined in the Australian Standard AS4760."*
>
> And at 9.5(d):

> *"The CASA approved tester will then take a sample of oral fluid using an approved device and subject the oral fluid sample to an initial test using an approved fluid screen device."*

> It seems apparent from that that CASA has faith in those devices, available devices, and in those cut-off levels to achieve the purposes of detecting drugs adequately in regards to safety in that industry. In the ARTC policy which is part of the bundle tendered by Arnott's, and it is I think the last one, at 2.2.5 on page 6 in relation to oral fluid drug screening that company goes so far as to identify a particular device which - that is the Medvet Oral7 device - which that company must consider meets the requirements of the testing regime in that case. It also refers to equivalents, so there's an understanding there that equivalent devices are also available." [64]

[180] United Voice submitted that urine testing does not strike the appropriate balance between the objects of the policy and the interests of the employees, and oral fluid testing would succeed to a greater degree in achieving those aims. Relevant to the deficiencies identified in the evidence before the Commission as to the oral fluid testing detecting the use of benzodiazepines, it was submitted that a relevant consideration of the Commission should be that the use of benzodiazepines by workers in the workforce at large is quite low. United Voice submitted that the evidence before the Commission is that only 1.8% of the workforce at large has misused benzodiazepines at least once in the past 12 months, and only 0.6% at least once in the past month.

Previous cases involving drug and alcohol testing

[181] The parties provided the Commission with authorities relevant to where the Commission has dealt with matters before it concerning drug and alcohol testing. I have had due regard for all of the authorities, some of which are, in a very simplified manner, summarised below.

[182] *Endeavour Energy v CEPU & Ors* [2012] FWA 1809 involved a dispute about Endeavour Energy's intention to introduce a new drug and alcohol policy. The parties to the dispute agreed on the method of testing for alcohol testing, however disagreed on a number of other matters including the type of testing to be used and the appropriate cut-offs to be applied. Endeavour Energy sought to introduce urine testing while the respondent unions proposed oral fluid testing.

[183] Hamberger SDP determined that the proposed method of urinalysis was unjust and unreasonable, where the testing included pre-employment/preplacement, random testing, for cause/suspicion or post incident. His Honour considered the position of the parties in light of the proposed drug and alcohol policy and determined that oral fluid was the appropriate method to be conducted in accordance with AS 4760 – 2006. His Honour concluded as follows:

"[36] It is clear from all the evidence presented during the hearings that neither oral fluid nor urine testing devices are perfect. Seen from one perspective, urine testing can be seen as more 'accurate' in that it is more likely to pick up whether an employee has at some stage taken certain substances. However, that is not necessarily the goal of a workplace drug testing regime. I repeat what I said in Shell Refining (Australia) Pty Ltd v CFMEU ([2008] AIRC 510):

> '[117] Neither party in this dispute sought to argue that random testing for drugs (or alcohol) was unjust or unreasonable. However both parties also recognise that random testing is an intrusion on the privacy of the individual which can only be justified on health and safety grounds. The employer has a legitimate right (and indeed obligation) to try and eliminate the risk that employees might come to work impaired by drugs or alcohol such that they could pose a risk to health or safety. Beyond that the employer has no right to dictate what drugs or alcohol its employees take in their own time. Indeed, it would be unjust and unreasonable to do so.'

[37] Based on the evidence presented to me in this case I draw the following conclusions.

[38] Both methods are susceptible to cheating. For example, cleaning one's mouth thoroughly after smoking cannabis would minimise the risk of being caught by an oral fluids test. Urine can also be adulterated. There is some evidence that saliva/oral fluid screening is less susceptible to specimen adulteration or substitution compared to urinalysis. In practice however, the likelihood of someone being in a position to cheat effectively when a test is conducted at random and with no prior warning is in my opinion relatively low.

[39] Australian standards exist governing both methods; and there are laboratories accredited for the analysis of both oral fluid and urine samples. Systems are in place to verify on-site testing devices for both oral fluids and urine.

[40] Neither method tests directly for impairment. However, a method which tests for recent consumption (only) is more likely to identify someone who is impaired. While some witnesses regard this as a weakness, it is precisely because it only detects for recent use that oral fluid testing is a better indicator of likely impairment as a result of smoking cannabis (the most widely used drug apart from alcohol) than a urine test. Indeed, urine testing may be unable to identify that someone has smoked cannabis in the previous four hours - precisely the time frame which is most relevant for identifying likely impairment.

[41] Not only is urine testing potentially less capable of identifying someone who is under the influence of cannabis, but it also has the disadvantage that it may show a positive result even though it is several days since the person has smoked the substance. This means that a person may be found to have breached the policy even though their actions were taken in their own time and in no way affect their capacity to do their job safely. In the circumstances where oral fluid testing - which does not have this disadvantage - is readily available, I find that the introduction of urine testing by the applicant would be unjust and unreasonable. Accordingly I find that the system of drug testing that should be used by the applicant for on-site drug testing should be that involving oral fluids. This should be done on the basis of AS4760 - 2006: the Australian Standard governing procedures for specimen collection and the detection and quantitation of drugs in oral fluid."

[184] The decision was upheld by a Full Bench of Fair Work Australia,[65] which concluded that it was open and appropriate for his Honour to conclude that oral fluid should be adopted, noting:

> "The approaches and policies to be adopted by employers on drug and alcohol testing in the workplace will depend upon what is deemed appropriate according to their needs and the circumstances."[66]

[185] In *CFMEU v PKCT*[67] the Full Bench reviewed a number of decisions concerning the method of drug and alcohol testing, including *Endeavour Energy* and concluded that it would not be unjust or unreasonable for the respondent to implement both urine and oral testing on a random basis.

[186] The Full Bench adopted the approach in *Endeavour Energy* that 'the question of which testing method is to be adopted must be considered having regard to the purpose and aims of the drug testing policy'.[68] The Full Bench considered it was reasonable to infer that the purpose of Port Kembla's policy was to reduce the risk that workers would attend the workplace impaired by drugs or alcohol, primarily by way of deterrence.[69] The Full Bench found that the respondent's proposal was not unreasonable, and in applying the principles in the *XPT* case, concluded as follows:

> "[68] An additional purpose of random testing is to detect drug use by employees in order to enable PKCT to reduce and manage workplace risks associated with drug use. As we have already stated, neither test establishes functional impairment caused by drug use.
>
> [69] PKCT has a statutory duty to ensure, so far as it is reasonably practicable, the safety of its employees and contractors who might be put at risk by work that is being carried out. An essential element of this duty involves the identification of potential hazards and elimination or minimisation of risks. It seems to us that PKCT's AOD Standard and its preferred drug testing regime is part of the method employed by PKCT to discharge this duty. Having regard to the high-risk nature of the work undertaken at the Port Kembla coal terminal by employees, the privacy concerns about urine testing must therefore give way to allow the implementation of a testing method which will enable PKCT to identify and manage workplace safety risks.
>
> [70] We have also taken into account two other factors. One is Mr Calder's uncontested evidence is that most of the respondent's shareholder entities and other Australian coal export terminals use urine-based drug testing.
>
> [71] Finally, we have given significant weight to the way in which PKCT has indicated it will use non-negative test results. In particular a case management approach will be adopted, which will have regard to the circumstances of individual workers. While acknowledging that in some circumstances a non-negative result could lead to disciplinary action, other outcomes could include rehabilitation, counselling, participation in the Employee Assistance Program, scheduled testing and the development of a return to work plan.
>
> Conclusion

> [72] As we have indicated, PKCT is obliged to ensure, so far as is reasonably practicable, the health and safety of its employees and contractors while they are at work. This means, inter alia, that PKCT must try to eliminate (and where this is not practicable, to minimise) the risk that employees might come to work impaired by drugs or alcohol and so pose a risk to health and safety. PKCT is certainly entitled to implement a system of random drug testing to assist it in discharging its obligation.
>
> [73] Random drug testing inevitably involves a degree of intrusion by an employer into the private lives of its employees. While neither method is fool-proof, the evidence indicates that oral fluid testing will generally identify employees who have recently consumed a drug and are therefore likely to be impaired. Urine testing will identify whether an employee has taken a drug in the preceding days or even weeks – including at times when there is no serious risk that the employee will still be impaired when they attend for work. While there are privacy concerns with urine testing, we consider that in the particular circumstances of PKCT, it would not be unjust or unreasonable for PKCT to implement its proposed AOD Standard and associated testing method." [70]

Consideration

[187] Where the word 'workers' is used as opposed to 'employees' in this decision, it is used to capture all workers who may attend the workplace including contractors or employees of other employers. It is not limited to employees of Arnott's, although it is noted that this decision affects only Agreement-covered employees at the Virginia site.

[188] The parties agree that the relevant principles that should be applied by the Commission are those set out in the *XPT* case.[71]

[189] It does not seem to me necessary to examine the entire ADP to determine if all parts of the ADP are just or reasonable, in order to determine if any parts are unjust or unreasonable, when the parties have helpfully narrowed the issues to the method of testing when the purpose of the ADP is considered.

High risk workplace

[190] The nature of the workplace is an important consideration. On the evidence before the Commission, I am satisfied that the Virginia workplace, other than where administration work is performed, is a high risk workplace. Workers are working with machines with blades that mix large volumes of food together. Ovens are at very high temperatures and extend for up to 100 metres. Blockages can occur, and emergencies may arise requiring quick attendance to the emergency.

[191] There is the potential of risk of explosion for various reasons. Rollers for the use of rolling dough are used and these present realistic workplace hazards to workers. Understandably there is movement on the site of forklifts with product.

[192] The ADP will provide for testing following a workplace incident rated as high or extreme actual or potential outcome according to the company risk matrix, or one that was reportable to a regulator or other external agency (i.e. a serious incident), with the assessment of the risk category to be conducted by a competent leader as well as a Health and Safety Representative (HSR) where available.

Deterrence

[193] The evidence given by Ms Ayers at [28] demonstrates that there are some workers at Arnott's who have attended the workplace under the influence of drugs or alcohol, or who have acknowledged that they have a drug or alcohol issue. On some occasions those workers have obtained the assistance of the EAP and returned to work. On other occasions the workers have not overcome the issue and no longer work at Arnott's.

[194] Workers in a high risk work environment should expect that their fellow workers in attendance are not inappropriately affected by drugs or alcohol; whether directly due to acute effects, or due to a hangover effect or long-term effect. Workers are reliant on each other for a safe workplace. Where the ADP proposes to capture all workers (including management), production and trade workers should be comforted that management's responsibility for a safe workplace is as paramount as management, as individuals, to ensure they too don't engage in breaches of the ADP. If a production worker thought twice about engaging in illicit drugs two days prior to commencing a new week of work, so too will the manager. The production worker can gain greater confidence that their manager will make correct decisions and not be affected by hangover or long-term effects in their decision making, as this may have a bearing on the production worker's safety in the workplace.

[195] Urine testing following a high, extreme or otherwise reportable incident, or for reasonable cause will provide a greater deterrent effect than will oral fluid testing. This is so because of the longer detection period in urine testing.

Detection times

[196] Relevant to the evidence before the Commission as to what the cut-off limits for the Australian Standards (for either urine testing or oral fluid testing) mean, neither party was able to definitely state why the Australian Standards have been so set. I understand that the Australian Standards cut-off limits do not indicate that if a person has reached the cut-off that they are presently or acutely impaired. That is clear when regard is had to the evidence adopted in *CFMEU v PKTC.*[72]

[197] It appears that the levels are set as they are so that they do not produce, unnecessarily, positive results.[73] That is, for cannabis detection, if the levels are set too low they might create an issue for those who live with a frequent user, where the worker does not use the drug, but produces a positive result on account of passive smoking.

[198] It is clear that there are issues of accuracy of on-site oral fluid testing devices, when consideration is given to the detection times. During the hearing, reliance was given to Table 7a of Dr Pidd's evidence reproduced at [103]. There does not appear to be dispute between the parties relevant to the detection times for urine testing, even when the on-site versus laboratory testing is taken into consideration. However, having received further evidence following the hearing as to the detection times for oral fluid testing, it is clear that research has focussed on laboratory testing and not on-site testing devices.

[199] Where, for example, oral fluid testing is trying to detect occasional cannabis use, Table 7a represents that it can be detected for up to 24 hours. On the evidence submitted post-hearing, it is clear that the period of time is true only for laboratory testing, and at rates as low as 2 ug/L using the Substance Abuse and Mental Health Services Administration (SAMHSA), a branch of the US Department of Health and Human Services mandated cut-off levels. For on-site devices the cut-off level is 4 ug/L.

[200] When compared with the Australian Standards oral fluid levels of 10 ug/L (laboratory) and 25 ug/L (on-site device), it is clear that the stated detection times in Table 7a have produced an overstated period for detection of occasional cannabis use. If the Australian Standards testing will not pick up levels at less than 25 ug/L using on-site oral fluid devices, it is not accurate to say that the detection 'window' is up to 24 hours for cannabis use.

[201] The stated detection time is relevant only if one was testing for levels as low as 4 ug/L. The Arnott's levels, adopting the Australian Standards is not nearly as low as that. Accordingly, the detection time for levels at 25 ug/L or greater would be a shorter window. Disappointingly this was not put before the Commission until such time as the Commission made further inquiries.

[202] It is not known on the evidence before the Commission at what 'detection time' an occasional cannabis user would then fall below 25 ug/L using an on-site oral fluid device. Would it be six hours, eight hours, 12 hours or more? Dr Lewis noted at [69] that within two hours of smoking cannabis the level in an on-site oral fluid device, measuring the oral cavity, might measure below 5ug/L. Dr Pidd agreed that acute intoxication has largely dissipated within 5-6 hours of ceasing use, while the negative effects of hangover on performance have largely dissipated within 24 hours of ceasing use at [108]. This source is not referenced by Dr Pidd. On the evidence before the Commission, however, it is unsatisfactory that the on-site oral fluid testing might not detect very recent smoked cannabis use, yet the person may still be within an acute intoxication state.

[203] Whilst it is true that urine analysis is unlikely to detect smoked cannabis use within the acute intoxication state for a first-time user within the first 4 hours,[74] it will detect the use thereafter. I am satisfied that the risk of a first-time cannabis user participating in the activity in the 4-6 hours before they commence work or whilst at work is extremely low. I have placed greater weight on the deterrence factor of urinalysis to detect occasional and regular cannabis use of workers, than the very unlikely event of a first-time user using cannabis a

short time before commencing work. There is greater merit to give effect to the purpose of the policy Arnott's wishes to adopt in detecting occasional and regular use of the drug, than of the individual who consumes the drug for the first time, and is quite likely to exhibit acute signs of intoxication in the workplace.

[204] Arnott's is not interested in discovering if a worker's THC reading is below 25 ug/L for on-site oral fluid testing, or 50 ug/L for on-site urine testing. What then is the detection time for a reading of 25 ug/L for on-site oral fluid testing? It appears to be uncertain.

[205] Having regard to evidence before the Commission in the decision at first instance in *Construction, Forestry, Mining and Energy Union v Port Kembla Coal Terminal Limited*[75] and relied upon by the Full Bench in *CFMEU v PKTC,* an expert witness, Dr Robertson said the following:

> "…whilst impairment cannot be inferred from the results of either urine or oral fluid, it is clearly demonstrated that relative to urine, oral fluid better reflects the presence of drug in the blood stream and therefore is a better indicator of recent drug use and therefore possible impairment. Given oral fluid reflects the presence or absence of drugs in the blood stream, like blood, the window of detection of drugs is therefore shorter (relative to urine) however this should not be seen as a negative feature of oral fluid testing but rather that when a sample is found to contain drugs i.e. 'positive', there is a greater likelihood that the individual may be impaired relative to a 'positive' result in urine and when no drug is detected this would suggest no use of the drug in the day or days preceding the test and therefore the likely absence of impairment."[76]

[206] Further, Dr Robertson said:

> "…the window of detection of drugs in oral fluid is shorter (hours) relative to the window of detection in urine where drugs (and/or their breakdown products) are detected for an extended period of time after use (days or weeks) and after levels in the blood are undetectable. Thus relative to the time of use, drugs detected in the oral fluid generally represent a time closer to drug use and possible impairment than drugs detected in urine i.e. drugs in the oral fluid represent 'recent use' as stated in the Australian Standard. Urine simply confirms that the individual has been exposed to the drug in the previous hours, days or weeks depending on the drug, the dose and frequency of use.[77]

[207] It is apparent, therefore, that the detection times for occasional cannabis use when using on-site oral fluid devices is not 24 hours, and is in fact a number of hours. On Dr Pidd's evidence, the worker would likely still be exhibiting hangover effects for up to 24 hours. On the cumulative evidence, the worker exhibiting hangover effects at say, 20 hours after ceasing use would not reach the required cut-off level for detection (25 ug/L) if the worker was required to undertake an on-site oral fluid test.

Acute, hangover and long-term effects versus impairment

[208] Arnott's has stated that the purpose of the policy goes beyond testing for the potential for impairment in the workplace. Its stated intention is to manage the risk of workers who do engage in the use of drugs.

[209] United Voice's submission acknowledges that minimising the risks posed to workplace safety by the misuse of alcohol and drugs should be the focus of the Commission's attention. United Voice, properly, does not quibble with the detection of drugs relevant to the potential of acute effects on a worker. Relevant to hangover and long-term effects, I understand that United Voice submits that the period of detection times should largely cover the hangover effects of most drugs, and with regard to chronic methamphetamine use, there would be very few employed workers in the workforce at large who could disguise their use.

[210] When consideration is given to the table at [82], it is alarming that any stated risk of 'Moderate' or greater, is likened to the worker attending and performing work at an equivalent BAC of 0.05 or more. On examination of the table, the hangover risks for all drugs, excluding cannabis cannot be ignored. They are far too great a risk to the worker and to their fellow workmates.

[211] I am satisfied that the hangover effects alone, for some drugs, go beyond the detection period of on-site oral fluid devices. Dr Pidd suggested at [120] that the hangover effect of cannabis can be up to 24 hours, and if oral fluid testing can detect for that period, it should be considered a satisfactory method. On the information before the Commission, oral fluid testing will simply not detect for such a period of time, and therefore it is not an appropriate method when regard is had for Arnott's ADP. This is so despite the stated hangover effect in the table at [82] below 'Low'.

[212] I am satisfied that the long-term effects of chronic drug use and the impact it might have on a worker's performance would not be detected with oral fluid testing.

[213] At [122], Dr Pidd agreed that a person who had smoked methamphetamine on a Saturday night and presented for work on a Monday morning would most likely be fatigued. Dr Pidd's evidence at [123] is that a clinical patient's results in a laboratory experiment demonstrated that at 36 hours, the person tested positive for methamphetamine use. Given that Dr Pidd was unable to state if the person being analysed slept at any time during the 36 hour laboratory assessment, I am not satisfied that the study can be relied upon as it is unlikely to bear any similarity with how a person not engaged in a laboratory experiment might behave after consuming methamphetamine.

[214] Alarmingly, the hangover effect of ecstasy can last up to five days at [151]. Dr Lewis' evidence is that the hangover risk of ecstasy use is 'High to Severe'; effectively the equivalent of a person in the workplace with a BAC of 0.08 or greater. Oral fluid testing will not detect this.

[215] I have determined that Arnott's is not acting unjustly or unreasonably by adopting a policy using urine testing to discover if a worker is at work and affected by hangover or long-term effects of drug use.

Roadside drug testing

[216] The parties informed the Commission that roadside testing by various state police forces is undertaken using on-site oral fluid devices. Arnott's submitted that it was because it would not be efficient to require drivers to provide a urine sample, and the inconvenience involved. Dr Pidd referred to roadside testing being a practical way to test for a range of drugs.

[217] On the Commission's examination, the Queensland Police website provides the following information relevant to random roadside drug testing:

> **"Random roadside drug testing**
>
> **What drugs will be tested?**
>
> Police will ask you to provide a saliva sample for the purpose of testing for:
>
> - THC—the active ingredient in cannabis
> - Methylamphetamine—also known as speed and ice
> - MDMA—the active ingredient in ecstasy.
>
> Saliva tests will only be able to detect the active ingredients of the nominated drugs THC, MDMA and methylamphetamine.
> Even though methamphetamine is manufactured from substances such as pseudoephedrine (found in cold and flu tablets) those substances will not be detected by the saliva tests.
>
> **How will saliva based roadside drug driving testing work?**
>
> Roadside drug testing allows police to conduct saliva testing in conjunction with random breath testing (RBT) or as a stand alone check. The roadside drug testing process operates in a similar way to RBTs.
>
> **What is the testing process?**
>
> You will undergo a simple and painless preliminary saliva test (screening test) which will take three to five minutes. If a negative result is returned you will be free to go. If a positive result (drug detected) is returned you will be taken to a police vehicle for a second saliva test.
>
> If the second saliva test is positive for drugs, your driver licence will be suspended for 24 hours and the remainder of the saliva sample will be sent for laboratory analysis. Following a positive laboratory result, motorists will be notified and charged with a traffic offence for drug driving.

If you are unable to provide a saliva sample you will be required to provide a specimen of blood for analysis.

What level of drugs can be detected without penalty?

There will be zero tolerance. Any trace of the nominated drugs in your system and you can be penalised.

What are the penalties?

A first offence carries a penalty of up to $1 706 and you could be disqualified from driving for up to 3 months. Any subsequent offences can carry higher penalties and driver licence suspensions prior to appearances in court.

Can a saliva sample be used for other purposes?

No. Saliva samples obtained from a roadside drug test can only be used to detect drug driving and will only result in a traffic offence if a positive result is returned. All saliva specimens obtained from roadside drug testing will be destroyed once they are no longer required.

Who will conduct the test?

Police officers who are trained and authorised to operate the testing devices will conduct roadside drug testing.

How long after consuming illegal drugs can they be detected?

The saliva tests are designed to only react with the active ingredient of the relevant drug.The detection period for the active ingredient in the relevant drug varies depending on factors such as the quantity and quality of the drug that has been ingested, the frequency of use of the drug and the period of time since taking the drug.

Prescription and other drugs

Driving under the influence of drugs

If a police officer reasonably suspects that your driving ability has been impaired by any drug you may be required to provide a specimen of blood for analysis. If you fail to provide a specimen as required, or a drug is detected in your blood, you will be charged and required to appear in court. If convicted you could be disqualified from holding or obtaining a driver licence for a period of time. You may also be fined and face jail time.

What are the different types of drugs?

The following is an outline of drug families and their common medication names.

Central nervous system (CNS) stimulants

Stimulants or "uppers" speed up your brain and body. Common stimulants include:

- amphetamines
  slimming pills
- some cold and flu medication and decongestants which contain substances such as psuedoephedrine (eg. Sudafed, Benadryl, Codral, Tylenol Cold and Flu)
- illegal drugs (eg. speed, ecstasy, and cocaine).

Central nervous system (CNS) depressants

Depressants or "downers" slow down your brain and body. Common depressants include:

- pain killers containing codeine based preparations (eg. Panadeine, Codalgin, DymadonCo, Digesic, Capadex, Paradex, Nurofen Plus, Mersyndol, and Aspalgin)
- cough mixtures (eg. Benadryl Original)
- allergy medications (eg. Actifed, Polaramine, and Avil, Phenergan, and Dilosyn)
- benzodiazepines (eg. Valium, Rohypnol, Serapax, Rivotril, Mogadon, Alepam, Alodorm,Antenex, Ducene, Normison,and Temaze)
- antidepressants (eg. Tryptanol, Prothiaden, Tofranil, Dothep, Endep, Moclobemide, and Sertraline)
- antihistamines (eg. Polaramine, Avil, and Actifed)
- barbiturates (eg. Phenobarbitone)
- sedatives and tranquillizers (eg. Largactil, Melleril, Risperdal, Stelazine). Narcotic analgesics
- opiates (morphine, codeine, and oxycodone)
- methadone
- pethidine
- illegal drugs (eg. heroin). Other drugs
- illegal drugs (eg. cannabis, marijuana, hashish and hashish oil; and hallucinogens- LSD, mushrooms)
- solvents (sniffing glue, paints, and aerosols)
- inhalants
- high dose corticosteroids (eg. Prednisone, Prednisolone, Cortate, Dexamethasone)
- antihypertensives (beta blockers eg. Betaloc, Minax, Tenormin, Noten, Inderal, Deralin, and Dilatrend)
- interferon (eg. Betaferon)
- some herbal medicines (eg. Valerian, Passionflower, Sleep Ezy)
- alcohol.

How can these drugs affect my driving?

The effects of drugs on driving vary depending on the type of drug. Common effects of drugs on driving are:

- inability to judge distance and speed
- distortions of time, place and space

- reduced coordination
- hyperactivity
- aggressiveness
- paranoid psychosis
- hallucinations
- blurred vision
- convulsions
- dizziness and fainting
- fatigue
- memory loss
- nausea
- tremors
- unpredictable moods/behaviours
- unconsciousness
- muscle weakness.

Safety tips

Mixing drugs with other drugs or alcohol can seriously affect your health and your ability to drive safely. You may not feel intoxicated, when in fact you could be over the limit.

- Never drive after taking illegal drugs.
- Never drive after taking prescribed or over-the-counter medications that could affect your driving.
- If you take a prescription or illegal drug and you are unsure of the effect of that drug on your ability to drive, don't drive,use public transport, ask someone else to drive or catch a taxi."

[218] Similarly, the NSW Police Force website provides the following information:

"Serious safety problem

Safe driving requires good judgement and sharp concentration. You also need to react quickly to changing situations on the road. Drug driving puts everyone on the road at risk. Our research shows that the presence of illegal drugs is involved in the same number of fatal crashes as drink driving.

Mobile Drug Testing (MDT) operates alongside RBT for alcohol and police also have the power to test drivers they believe may be under the influence of illegal or prescription drugs. MDT is increasing, with police conducting about 100,000 roadside drug tests each year in NSW.

Our MDT campaign combined with enforcement is the best way to stop drivers who have used drugs from getting behind the wheel when they shouldn't.

When you are stopped

MDT detects drivers who have recently used three common illegal drugs: ecstasy, cannabis and speed (including ice). MDT can be conducted at roadside operations along with RBT, or by NSW Police in vehicles patrolling our roads.

As with RBT, you will be stopped by police, asked for your licence, and complete a breath test for alcohol. You will then be asked to wipe an MDT test stick down your tongue to check if you have illegal drugs in your system. The results take a few minutes to appear and you must wait until police say you are in the clear. Most drivers test negative and are soon on the road again.

If your MDT test is positive, you'll be taken to a roadside testing van or bus, or back to a police station to provide a saliva sample. This sample will also be tested and if positive, you'll be banned from driving for 24 hours. All samples are sent to a laboratory for analysis. If the laboratory confirms the positive roadside result, police will contact you and charge you with driving with the presence of an illegal drug.

If you are stopped for MDT or other reasons at the roadside, your behaviour or driving is erratic and police suspect you are under the influence of illegal or prescription drugs, they can also require you to undergo blood and urine testing. The tests cover a large range of legal and illegal substances that can impair drivers and can lead to a charge of driving under the influence (DUI), which has serious penalties.

All drivers involved in fatal crashes undergo blood and urine testing for drugs and alcohol.

Consequences

Drivers caught with drugs in their system will face court, could lose their licence, be fined and end up with a criminal record. For a presence offence detected through an MDT, the court may impose a fine of up to $1,100 and an automatic six month licence disqualification.

Drivers proven to be driving under the influence of illegal or prescription drugs, face fines of up to $2,200 and automatic 12 month licence disqualification for a first offence. These offenders can also be sentenced to up to nine months in prison. Higher penalties apply for second and subsequent offenders.

Don't make a foolish decision

Illegal drugs can be detected in your saliva by an MDT for a significant time after drug use, even if you feel you are OK to drive. The length of time that illegal drugs can be detected by MDT depends on the amount taken, frequency of use of the drug, and other factors that vary between individuals. Cannabis can typically be detected in saliva by an MDT test stick for up to 12 hours after use. Stimulants (speed, ice and pills) can typically be detected for one to two days.

If you think that you may have illegal drugs in your system, the best decision is not to drive.

Our Getting home safely tips have advice on how to avoid the risk of driving if you have used drugs.

> **Protecting the community**
>
> In 2015, about 10 per cent of MDTs came back positive, compared with less than 1 per cent of RBTs for alcohol. Taking illegal drugs before driving puts you at greater risk of injuring or killing yourself, your friends or other innocent people. NSW Police are doing their job to keep you, your family and everyone else on our roads safe by carrying out MDT operations."

[219] It is apparent that random drug testing using oral fluid detection by the QLD and NSW Police Forces tests at first instance for three drugs only; cannabis (THC), methylamphetamine, and MDMA (the active ingredient in ecstasy). On an initial roadside test these three widely used drugs are screened. Police are not screening at the initial roadside test for prescription drugs which may affect a person's ability to drive safely, or for other illicit substances. Only if the Police Officer holds concerns that the person may be under the influence of illicit or prescription drugs will the decision be made that blood and/or urine testing is required.

[220] Clearly what is screened for at the initial roadside test by the Police is a far limited category of drugs than what Arnott's wishes to screen for when applying the Australian Standards. The use of on-site oral fluid testing by the Police is not a suitable comparator because of the limited type of drugs the roadside test is seeking to detect. Similarly, it is unknown at what levels the roadside testing is set to detect. The QLD detection levels state that any levels will result in a penalty. Dr Pidd's evidence is that it is his understanding that the on-site device used for roadside testing is set at only 5 ug/L, meaning it will detect users more readily than one set at 25 ug/L, adopting the Australian Standards.

[221] It is appropriate, and I apportion relevant weight to the fact that for Police roadside testing, blood and/or urine analysis is undertaken for the suspicion of use of illicit drugs or prescription drugs.

[222] Further, I do not consider the fact that the Police Force in QLD and NSW have elected to use limited oral fluid testing is a persuasive argument that Arnott's, by wishing to detect drug use of a wider category than the Police (at first instance) by urinalysis is acting unjustly or unreasonably.

Benzodiazepines

[223] On the evidence before the Commission, oral fluid testing using on-site devices cannot satisfactorily detect the use of benzodiazepines.

[224] Benzodiazepines are described by the Queensland Government health website as:

> "Sedatives/benzodiazepines

- *Benzodiazepines* are central nervous system depressants and are commonly prescribed by doctors to relieve stress and anxiety, and to help people sleep.
- Common benzodiazepines include Valium, Serepax, Mogadon, Normison.
- Chances of overdose can be increased if taking benzodiazepines with other depressant drugs, such as alcohol."[78]

[225] The effects of benzodiazepines may be as follows:

- Depression
- Confusion
- Feelings of isolation or euphoria
- Impaired thinking and memory loss
- Headache
- Drowsiness, sleepiness and fatigue
- Dry mouth
- Slurred speech or stuttering
- Double or blurred vision
- Impaired coordination, dizziness and tremors
- Nausea and loss of appetite
- Diarrhoea or constipation[79]

[226] Of course benzodiazepines can be prescribed, and the proper use of them for therapeutic reasons is acceptable so long as the use does not adversely affect the ability of the worker to safely perform their work. Misuse of the drugs in that class of drugs can have adverse effects on the worker and those in the same workplace.

[227] It is appropriate, and I apportion relevant weight to the fact that on-site oral fluid devices do not, at present, satisfactorily detect the use of benzodiazepines. With approximately 1.8% of the employed workforce misusing this class of drug at least once in the last 12 months, and 0.6% in the last month, these are not figures that Arnott's wishes to ignore. With approximately 700 workers on-site, if the Arnott's workforce was representative of the general population, this might result in the risk of approximately 12 workers per annum engaging in the misuse of this class of drugs, and approximately 4 workers per month.

[228] Whilst Dr Pidd's evidence is that the more likely user of cannabis or methylamphetamine use is typically male and employed as tradesperson or in trade related roles in construction, hospitality, IT/communications, or agricultural, hospitality or utilities industries, there is no such evidence before the Commission relevant to the most likely users of benzodiazepines. It cannot be concluded that up to 12 Arnott's workers at the Virginia site will misuse benzodiazepines at least once within 12 months, or up to 4 within one month. The potential risk, however, that some workers may present for work while under the influence or suffering longer effects from the misuse of benzodiazepines is not fanciful or over-exaggerated. I consider Arnott's desire to test for the misuse of benzodiazepines through urine analysis to be just and reasonable.

Privacy in providing a sample of urine

[229] The amendments made by Arnott's to the ADP following the first two days of hearing are significant improvements for the workers' benefit. The ADP positively states that there will not be any observed testing permitted, where the collector observes the stream of urine from the worker's body into the collection cup. This statement is entirely appropriate. The workers at Arnott's are not world-class competing athletes competing in events who would expect to have their urine collection observed; nor are they prisoners in a correctional facility.

[230] The improvements to the ADP also permit, except in very limited circumstances, the worker requesting the collector leave the van so that the collection of the sample is not monitored. Some workers may never have had to produce a urine sample in their adult life in the presence of a person in authority. It might be embarrassing for some workers, and not for others. It may be that male workers might be less likely to be embarrassed due to their familiarity at urinating at urinals in public settings near other men. The improvements made by Arnott's goes a very long way in addressing any anxiety a worker, male or female may have in producing a required sample.

[231] I am satisfied that the improvements made by Arnott's address concerns a menstruating woman might have in the production of a urine sample.

[232] I am further satisfied that the improvements made by Arnott's to the ADP allowing the worker providing the sample to flush the toilet after collection of the sample, without the collector having to view the contents of the toilet bowl address any potential embarrassment to workers. I accept that this alteration to the ADP does not result in the collection of the sample not meeting the Australian Standard.

Privacy of illicit drug use in non-work time

[233] I have had regard to the submissions put that the longer detection times of urinalysis may reveal illicit drug use of a worker when the worker attends for work but is not impaired in any way.

[234] I adopt the reasoning of the Full Bench in PKCT set out at [186] of this decision. Having regard to the high-risk environment at the Virginia site and the purpose of the ADP, I do not consider Arnott's desire to reduce the risk of workers attending for work affected by drugs or alcohol, subject to urinalysis to be unjust or unreasonable.

[235] Any privacy concerns of an individual will be taken into consideration by Arnott's, and workers may avail themselves of the EAP. Not all breaches of the ADP will result in disciplinary action being taken against the worker.

Potential for cheating

[236] Having heard evidence of the potential for cheating in either method of collection, I am satisfied that there is a low level of risk by workers of cheating urine collection when the requirements to be directed to produce a sample do not include random testing. On the evidence before the Commission, some workers in the workplace at large have been known to strap synthetic urine samples to their body, or have clean samples contained within a condom strapped to their groin to maintain a suitable temperature. In my considered view, the likelihood of this occurring at the Virginia site is very low. This is so for two reasons.

[237] Firstly, the site is located in suburban Brisbane where people travel from home to work, and work to home. The workers are not accommodated on-site in, for example, fly-in/fly-out camps, where one would expect workers to spend more leisure time with each other. The potential for relationships and friendships to flourish outside of the workplace is greater in such accommodation camps, and the trading of clean urine samples presents a higher probability than between workers who are not accommodated together.

[238] Secondly, if a worker is aware that at irregular or regular periods there will be a random drug test conducted, they are more likely to strap clean samples to their body and wear them for as long as necessary throughout the period of work. I am satisfied, and Dr Pidd's evidence at [128] is in agreement that in the absence of random drug testing, a worker at Arnott's Virginia is highly unlikely to attend for work each day or on most days with such an object secured to their body.

No objection by United Voice for testing on some occasions

[239] It is noted that United Voice does not object to urine testing for two of the four occasions where Arnott's wishes to conduct urine testing. United Voice is commended for not opposing the two occasions, that being pre-employment tests and return-to-work tests.

Self-testing outside of work

[240] Arnott's has or will initiate a trial period allowing workers to self-test for drugs and alcohol outside of the work premises using oral fluid devices for drugs, and a breathalyser for alcohol. Arnott's is to be commended for this practice, suggested by the Unions at the first conference. I state, however, that the decision by Arnott's to provide this opportunity to workers on a trial basis, as opposed to a permanent basis has not had any bearing on my decision. If the trial basis was adopted permanently, it would have carried appropriate weight in the determination in favour of permitting urine testing on site.

Other organisations

[241] The Commission has considered the various policies of other organisations identified by each of the parties. I do not accept the submission of United Voice that where an employer

has adopted oral fluid testing as opposed to urinalysis, it was done so because the employer considered the method to be an appropriate screening test procedure otherwise 'they wouldn't' use them'. There may be many reasons why an employer has adopted oral fluid testing over urinalysis. Some of the reasons may include the inability to reach agreement with employees and their representatives, the cost involved, or the combination of random testing with the four occasions when Arnott's wishes to test. Without evidence of various employers as to the reasons why they have adopted oral fluid testing as opposed to urinalysis, I am not prepared to accept that it is because it was considered an appropriate method producing an appropriate level of non-negative results.

[242] I have, however, considered that some large employers such as Qantas and Nestle have introduced urine analysis for similar occasions that Arnott's wishes to test. I also note that Arnott's conceded that it did not wish to randomly test workers using urinalysis, as Arnott's considered this might be too invasive.

Conclusion

[243] This decision does not in any way suggest that where an employer has agreed with its employees to conduct oral fluid testing of its workforce, that determination is flawed. The method of detection of drugs and alcohol is a matter for each employer and its employees.

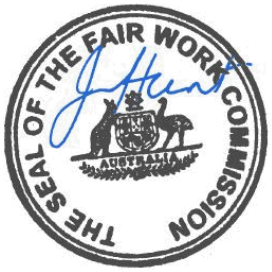
[244] I do not accept that Arnott's should, as suggested by Dr Pidd, not focus inquiries on chronic drug use within its workforce. I do not accept that the larger numbers of occasional drug users represent the largest overall drug related risk to safety. Urine testing will provide a greater deterrent effect than will oral fluid testing and this will accord with the desired outcomes of the ADP.

[245] Whilst, as Dr Pidd suggests, Arnott's should adopt contemporary good practice approaches to managing drug and alcohol related risk in the workplace by being proactive, I do not consider the adoption of the ADP as sought by Arnott's to work against any practices Arnott's endeavours to introduce for the benefit and safety of its workers.

[246] In all of the circumstances, the selection by Arnott's for urine testing at the Virginia site is a reasonable exercise of Arnott's right to manage its business in the way it sees fit. The Commission should only interfere in management decisions where it results in an unjust or unreasonable outcome for employees.

[247] Having regard to the purpose of the ADP, in answering the question before the Commission, I have determined that the answer is 'yes'. The adoption of the ADP is not unjust or unreasonable. Arnott's is required to appropriately communicate the final version of the ADP to all relevant workers.

[248] The dispute is determined accordingly.



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[1] *Arnott's Biscuits Enterprise Agreement* [2015] FWCA 4648

[2] Clause 3.5

[3] Clause 3.1

[4] Form F10, 2.1 at [2].

[5] *Australian Federated Union of Locomotive Enginemen v State Rail Authority of New South* Wales (1984) 295 CAR 188 at 191.

[6] Ibid.

[7] *CFMEU v Port Kembla Coal Terminal Ltd* [2015] FWCFB 4075 at [59].

[8] Professor MacDonald Christie.; Dr John Lewis, *The efficacy of oral fluid testing versus urine testing in the workplace* (December 2011), p 1.

[9] Statement of Ivan Brown at [26].

[10] PN171.

[11] PN501 – PN503, 20 February 2018.

[12] PN506.

[13] Statement of Dr John Lewis, Annexure JL-2 at p 4.

[14] Ibid.

[15] Ibid at p 5.

[16] Ibid at p 6.

[17] Ibid citing Chait, L.; Fischman, M.; Schuster, C., "Hangover" effects the morning after marijuana smoking. *Drug and Alcohol Dependence* 1985, 15 (3), 229-238.

[18] Ibid at p8 citing Crouch, D.; Walsh, J.; Flegel, R.; Cangianelli, L.; Baudys, J.; Atkins, R., An Evaluation of Selected Oral Fluid Point-of-Collection Drug-Testing Devices. *Journal of Analytical Toxicology* 2005, 29 (May/June), 244-248.

[19] Professor MacDonald Christie.; Dr John Lewis, *The efficacy of oral fluid testing versus urine testing in the workplace* (December 2011).

[20] Ibid p 7.

[21] Ibid p 6.

[22] Ibid p 13.

[23] PN583 – 589.

[24] PN594.

[25] PN597.

[26] PN615.

[27] PN660.

[28] Milman, G., Barnes, A., Schwope, D., Schwilke, E., Goodwin, R., Kelly, D., et al. (2011). Cannabinoids and metabolites in expectorated oral fluid after 8 days of controlled around-the-clock oral THC administration. *Analytical and Bioanalytical Chemistry*, 401, 599.

[29] PN695.

[30] PN16, 20 February 2018.

[31] PN18, 20 February 2018.

[32] PN38-42, 20 February 2018.

[33] *Fair Work Act 2009* (Cth), s 591.

[34] [2012] FWAFB 4998.

[35] Statement of Dr Ken Pidd, Appendix A p 4.

[36] Verstraete (2004); Dyer & Wlikinson (2008); Victorian Institute of Forensic Medicine (2017).

[37] In cases of frequent heavy use, oral fluid/saliva testing has been known to detect cannabis use for longer periods of time (Odell et al., 2015; Andas et al, 2014).

[38] Statement of Dr Ken Pidd, Appendix A p 4.

[39] Niedbala, R., Kardos, K., Fritch, D., Kardos, S., Fries, T., Waga, T., Robb, R, Cone, E. (2001). Detection of Marijuana Use by Oral Fluid and Urine Analysis Following Single-Dose Administration of Smoked and Oral Marijuana. *Journal of Analytical Toxicology*, 25, 289-301.

[40] Newmeyer,M., Swortwood,M., Andersson,M., Abulseoud,O., Scheidweiler,K., Huestis, M. (2017). Blood and Oral Fluid Cannabinoid Pharmacokinetics and Evaluation of Oral Fluid Screening Devices for Predicting Δ9-Tetrahydrocannabinol in Blood and Oral Fluid following Cannabis Brownie Administration. *Clinical Chemistry* 63(3) 647–662.

[41] Statement of Dr Ken Pidd, Appendix A p 7; citing Lee, D. & Huestis, M. (2013). Current knowledge on cannabinoids in oral fluid. *Drug Testing and Analysis*, 6, 88–111.

[42] PN306, 20 February 2018.

[43] PN337, 20 February 2018.

[44] PN105, 20 February 2018.

[45] PN162, 20 February 2018.

[46] PN288, 20 February 2018.

[47] PN365, 20 February 2018.

[48] (1984) 295 CAR 188 at 191.

[49] [2012] FWA 1809.

[50] [2015] FWCFB 4075.

[51] PN321, 20 February 2018.

[52] PN750.

[53] (1984) 295 CAR 188 at 191.

[54] *CFMEU v PKCT* [2015] FWCFB 4075 at [59].

[55] *Endeavour Energy v CEPU* [2012] FWAFB 4998 at [42].

[56] Statement of Dr Ken Pidd, Appendix A pp7-8 [9b].

[57] Ibid at Appendix A p4 [7a].

[58] Ibid at Appendix A pp 5-6 [8a]-[8b].

[59] Ibid at Appendix A at pp 7-9 [10a]-[10c].

[60] *Endeavour Energy v CEPU & Ors* [2012] FWAFB 4998 at [39](b).

[61] See for example *Sharp v BCS Infrastructure Support Pty Ltd [2015] FWCFB 1033.*

[62] [2015] FWCFB 4075.

[63] Exhibit R2.

[64] PN1105-1111. particularly at

[65] *Endeavour Energy v CEPU & Ors* [2012] FWAFB 4998.

[66] Ibid at [67].

[67] [2015] FWCFB 4075.

[68] *CFMEU v Port Kembla Coal Terminal Limited* [2015] FWCFB 4075 at [59].

[69] Ibid at [61].

[70] Ibid at [68]-[73].

[71] *Australian Federated Union of Locomotive Enginemen v State Rail Authority of New South* Wales (1984) 295 CAR 188.

[72][2015] FWCFB 4075 at [49].

[73] Dr Pidd at paragraph 7a on page 4.

[74] PN650.

[75] [2015] FWC 2384.

[76] *CFMEU v PKCT* [2015] FWCFB 4075 at [45].

[77] *Construction, Forestry, Mining and Energy Union v Port Kembla Coal Terminal Limited [2015] FWC 2384,* Exhibit 1 p 6.

[78] Queensland Government, 'Drug Types and Their Effects' (online), https://www.qld.gov.au/health/staying-healthy/atods/drugs/types#benzodiazepines (updated 2 March 2018).

[79] Alcohol and Drug Foundation, 'Benzodiazepines' (Online), https://adf.org.au/drug-facts/benzodiazepine (updated 31 May 2018).