



PATENTS ACT 1977

APPLICANT	Electric Shuffle IP Limited
ISSUE	Whether patent application GB1903129.3 complies with section 1(1)(b)
HEARING OFFICER	Phil Thorpe

DECISION

Introduction

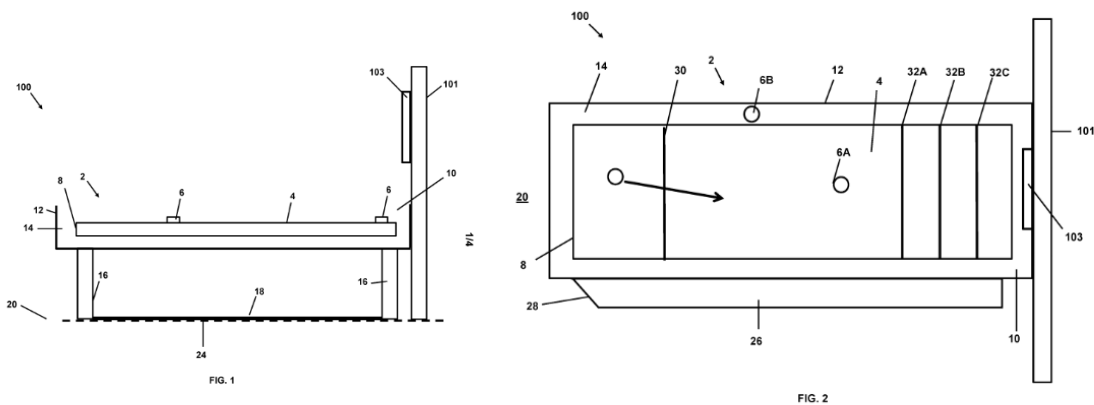
- 1 Patent Application No GB 1903129.3 entitled “Shuffleboard Board Arrangement” was filed on 8th March 2019. It was subsequently published as GB 2582012 A on 9th September 2020.
- 2 Despite thorough and detailed correspondence between the examiner and the applicant’s attorney, together with amendments to the claims, the applicant has been unable to satisfy the examiner that the application satisfies the requirements of the Patent Act 1977 (the Act). In particular, the examiner considers that the application does not involve an inventive step.
- 3 As such, the matter came before me in a Hearing which took place on 22nd March 2022. At the hearing, the applicant was represented by Mr Peter Arrowsmith and Mr David Lee of Gill Jennings and Every LLP. Gill Jennings and Every helpfully provided a skeleton argument prior to the hearing for which I am grateful.

The invention

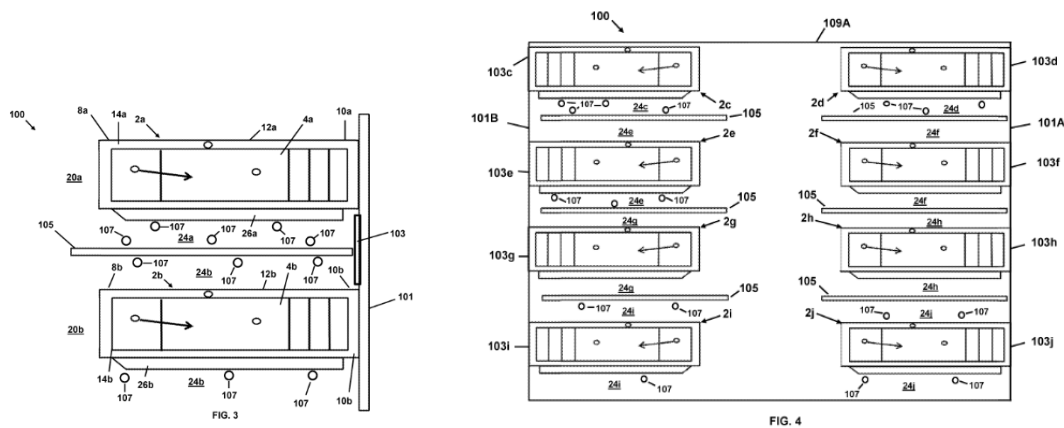
- 4 The invention relates to a shuffleboard table. Shuffleboard is a game traditionally played on a long wooden table with players situated at opposite ends. The players take turns to throw pucks from their end of the table towards the opposite end. Play continues until all pucks from an innings (or frame) are thrown, when scores are then determined. According to the applicant, the game is growing in popularity and is increasingly found in public spaces, such as bars and entertainment complexes.
- 5 While the game is increasing in prominence in entertainment establishments, this is not without issue due to such spaces being typically crowded. There is a desire to incorporate more tables in a limited amount of space. Shuffleboard tables are however large and need to be positioned to allow access to players at each end. The

invention purports to address this by enabling the shuffleboard game to be played from a single end instead of both ends as is traditional. A single ended game facilitates the positioning of the shuffleboard table against a wall and potentially allows more tables to be incorporated into a particular space.

6 Figures 1 and 2 depict a shuffleboard apparatus according to the invention. The table (2) has a sliding surface (4) upon which a puck (6) can be thrown from a single throwing end (8) towards a scoring end (10). The table is shown extending perpendicular from the wall (101). A scoreboard is shown at 103. The apparatus could also be in a corner of a venue in that the side of the table between the first and second end of the sliding surface are adjacent to a wall.



7 Figure 3 illustrates two boards, separated by a regular table or partition wall (103) with a shared scoreboard function (via, potentially, a split screen) with figure 4 showing a multi-table layout.



8 The latest claims were filed on 21st September 2021. There is one independent claim, claim 1, which reads:

A shuffleboard arrangement comprising:

a wall extending along a first direction, wherein the wall is a wall of a building in which a shuffleboard table is housed;

the shuffleboard table extending from the wall orthogonal to the first direction from a first end of the shuffleboard table to a second end of a shuffleboard table opposite to the first end of

the shuffleboard table, the first end of the shuffleboard table extended from the wall and comprising a scoring area and the second end of the shuffleboard table comprising a playing area from where the players throw pucks along a sliding surface towards the scoring area;

and a scoreboard for displaying scoring, the scoreboard arranged at the first end of the shuffleboard table, wherein the scoreboard is arranged on the wall.

The Law

9 Section 1(1) reads (with added emphasis):

A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –

(a) the invention is new;

(b) it involves an inventive step;

(c) it is capable of industrial application;

(d) the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below;

10 Section 3 then sets out how the presence of an inventive step is determined. It says:

An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).

11 It is well-established that the approach to adopt when assessing whether an invention involves an inventive step is to work through the steps set out by the Court of Appeal in *Windsurfing*¹ and restated by that Court in *Pozzoli*². These steps are:

(1)(a) Identify the notional “person skilled in the art” (1)(b) Identify the common general knowledge of that person;

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

(3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

Applying the Windsurfing/Pozzoli test

Identify the notional “person skilled in the art” and the relevant common general knowledge of that person

12 The applicant’s submission is that the notional person skilled in the art is a designer of shuffleboard games. This contrasts with the position of the examiner in this case

¹ Windsurfing case [1985] FSR 59

² Pozzoli SPA v BDMO SA [2007] EWCA Civ 588

who considered that the notional person skilled in the art would likely communicate with an architect or interior designer to optimise the use of space in an entertainment venue. The applicant argues that this is an artificial characterisation of the skilled person or team that has been constructed working backwards from the conclusion that the claimed invention lacks an inventive step. The applicant however accepts that a designer of shuffleboard games would understand issues such as the positioning of a table in a venue (with common constraints such as walls, partitions and other obstacles). Such a person would also be aware of space requirements especially given that the apparatus in question is, by its very nature, of notable size typically extending between 12 to 22 feet in length. On that basis I am content to accept that the skilled person is a designer of shuffleboard games.

- 13 The applicant argues that the common general knowledge of such a person would include general shuffleboard gameplay. Importantly, the applicant argues that the skilled person would also be aware that shuffleboard is typically played from opposing ends of the table. At the hearing, Mr Arrowsmith went further and argued that the skilled person would know that the game of shuffleboard is a game only played from opposing ends of the table. I take this to mean that it is played in this manner, to the exclusion of any other method. As Mr Arrowsmith accepted during the hearing, there is at least one prior art patent that does disclose a traditional shuffleboard game played from just one end. This he rightly observed does not make such arrangements part of the common general knowledge of the skilled person. Mr Arrowsmith did not present any technical limitations that would require a shuffleboard to be played from opposing ends of the table hence even if I accept that the common general knowledge of the skilled person is that only of shuffleboards played from both ends then that does not mean that they would not recognise or accept a disclosure showing it played from just one end.

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

- 14 Mr Arrowsmith clarified at the hearing that the arrangement of the scoreboard formed no part of the inventive concept. Rather the inventive concept is arranging a single ended shuffleboard to be located against a wall so that it takes up less space and increases the number of shuffleboards that can fit in a venue.

(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

- 15 The examiner has relied on the following prior art:

GB2558571 (DALE).

US 2007/075486 (SILVA I);

US2007/0257428 (SILVA II) and

US8025293 (CRAWFORD & BROOKS).

Dale

- 16 Dale relates to an improved automatic scoring arrangement for a shuffleboard. The introduction to the patent notes that:

“The game of shuffleboard, or table shuffleboard, is traditionally played on a long wooden table. Each player throws one plastic-capped metal puck in turn from one end of the table down towards the opposite end of the table until all the pucks of an innings or frame have been thrown.”

- 17 It then goes on to recognise that automatic scoring systems for shuffleboard exist already noting that:

“One example of such a system is described in CN203075589U. In this system a camera is arranged to point straight down at the scoring area of a shuffleboard table. In another example, found in CN2560399Y, a camera is arranged at each longitudinal end of a table, such that the game can be played in either direction.”

- 18 The description then goes on to describe a particular embodiment of the invention noting with reference to figures 1 and 2 below that:

“As shown in Figures 1 and 2, a shuffleboard table 2 has a sliding surface 4 on which a puck 6 can be thrown. The shuffleboard table 2 has a throwing end 8 and a scoring end 10. A trigger line 12 may be provided at a predetermined length 14 10 away from the throwing end 8 to define the limit of a throwing zone 16..... One or more previously validly thrown pucks 18B-18C can also be positioned in a well 20 that surrounds the sliding surface 4.”

and that:

“A camera 26 is arranged to point in a direction 28 that is angled from the normal 30 of the sliding surface 4. A computer 32 including one or more processors is connected to the camera 26 for analysing image data. In addition a Graphic User Interface 34 is connected to the computer 32 for displaying scores to players.”

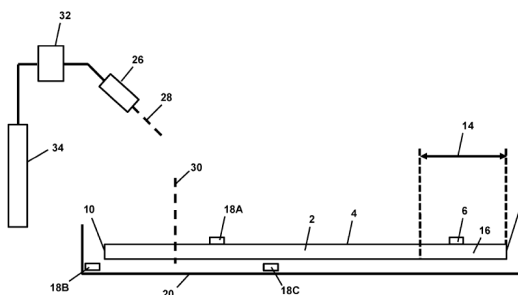


FIG. 1

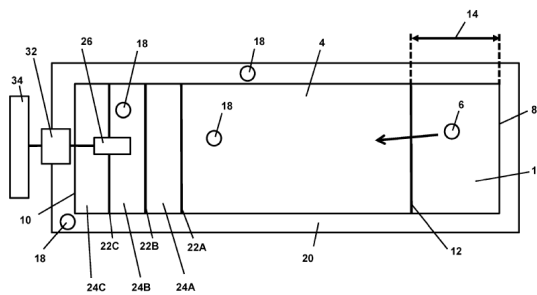


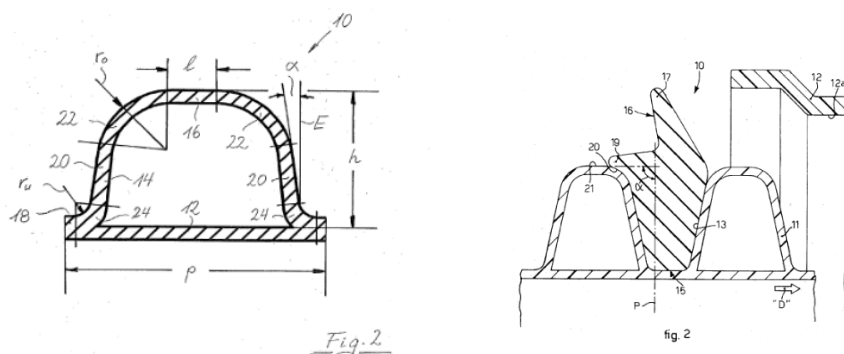
FIG. 2

- 19 There was some considerable discussion at the hearing as to how the skilled person would interpret the disclosure in Dale. Mr Arrowsmith rightly noted that a prior disclosure must be construed as it would have been understood by the skilled person at the date of the disclosure and not in light of the subsequent patent. A prior disclosure should also be read in light of the common general knowledge of the skilled person at the date of the disclosure. Mr Arrowsmith contends that the skilled person, possessing of the common general knowledge that shuffleboard is a game played from opposing ends, would understand the drawings to represent a simplified schematic of a two ended game. Hence even though the description and drawings appear to disclose a single scoring end 10 and a single throwing end 8 that is merely to simplify the representation and the skilled person would understand that there are

scoring and throwing ends at both ends. It would follow that there would also be a camera at both ends. To support his argument that the drawings are merely simplified schematics, he noted that the representation of the computer 32 in particular is unlikely to be located where it is shown in drawing.

- 20 Mr Arrowsmith also sought support from the EPO Boards of Appeal decision T 2052/14 for his argument against reading too much from drawings. This decision goes to the question of how much in terms of dimensions can you read from a patent drawing. The invention in issue in that case is a corrugated pipe characterised, with reference to the left drawing below, in that the value of the ratio between the length (l) of the outer substantially cylindrical section (16) and the radius of curvature (r_o) of the outer transition sections (22) is between about 0.1 and about 1.0. The prior art D1 referred to in the decision (see right figure) did not specify any of the relevant dimensions or ratios nor were any of the drawings identified as being to scale. The Board held that:

“Even if the figures in document D1 gave the examining division the impression that they corresponded to the feature of the characterizing part of claim 1, in this case this does not constitute a direct and immediate disclosure for the person skilled in the art for the reasons given above because he knows that the figures in patent specification D1 are only schematic representations, from which he cannot derive any specific sizes or size ratios with regard to the corrugation profile of the outer tube in this case without appropriate information.”



- 21 There is however a considerable difference between reading specific dimensions or ratios from a drawing with no dimensions and engaging in the sort of interpretation of the disclosure in Dale that Mr Arrowsmith is advocating.
- 22 Even if the skilled person had come to Dale with an awareness or common general knowledge that shuffleboard was only played from both opposing ends, that person would have been informed by the initial discussion in Dale that shuffleboard could be played from just one end. This is brought out in the discussion in the patent alone of the two Chinese prior art arrangements without any further investigation of this prior art. If the skilled person did venture further into the contents of CN203075589U, whose disclosure is incorporated by reference in Dale, then that would have reinforced their understanding that the game could be played from one end.
- 23 As I have already mentioned, CN203075589U discloses an automatic scoring system for a shuffleboard game. Further as shown in the following figure, the game in CN203075589U is intended to be played from one end.

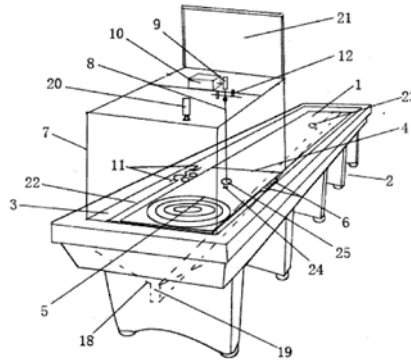


图 1

24 The advantages of this is recognised in the abstract for CN203075589U on the publicly available [Espacenet](#) which notes that:

“The full-automatic shuffleboard entertainment equipment is ingenious and reasonable in structural design, capable of achieving full-automatic scoring and ball returning, avoids the inconvenience that players and audience walk back and forth at two ends of a shuffleboard table and the situation that the site is in chaos, saves the occupied space of the shuffleboard table at the same time, and increases the space utilization rate.”

25 I raised the disclosure of CN203075589U with Mr Arrowsmith at the hearing and allowed a brief recess to enable him to consider it further. He noted that its disclosure was not particular extensive but recognised that it did go to the general problem of avoiding players having to walk from one end of the table to the other between rounds. He further accepted that there was some form of retrieval system for retrieving the thrown pucks and that overall, it did seem to be a shuffleboard that was intended to be played from one end.

26 He stressed however that CN203075589U was an obscure reference that would not be a part of the common general knowledge of the skilled person. I fully accept that however the question is whether the skilled person, even if having the understanding that shuffleboard had previously been played from just both ends, would nevertheless understand from the initial disclosure in Dale, with or without going to the specific disclosure in CN203075589U, that it could be played from one end. I believe the answer to that question is that they would. This would then be a factor in how they then interpreted the disclosure of the invention in Dale. They would see the references to a scoring and a throwing end, the contents of the drawings supporting that, and the absence of any explicit indication in Dale that the embodiment is merely a partial representation of a two ended shuffleboard arrangement and conclude that Dale is disclosing a shuffleboard designed to be played from one end.

27 The difference between the disclosure in Dale and the inventive concept of the claim or the claim as construed is therefore the arrangement of the shuffleboard extending orthogonally from a wall of a building with the scoring area closest to the wall.

Silva I and II

28 Both Silva documents disclose a shuffleboard table game where the table as shown below has a playing surface 16 is disposed between the first end 12 and the second

end 14. Furthermore, the playing surface 16 has a perimeter 22 about the playing surface 16. A bumper 24 is in contact with the second end 14 of the playing surface 16 to allow for pucks 50 to be reflected or deflected after coming into contact with the bumper 24. By incorporating at least one bumper 24 with the playing surface 16, the overall length of the table 10 may be less than that of traditional shuffleboard tables.

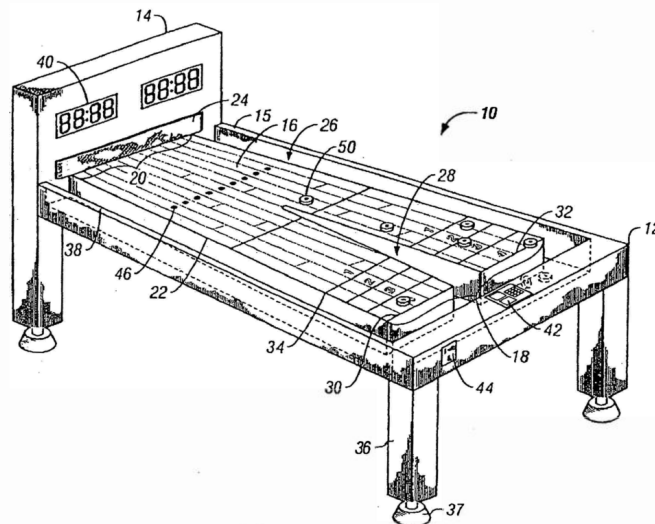


FIG. 2

29 In addition to recognizing that the length of the table is less than a normal shuffleboard, Silva I and II also discuss how the board according to the invention can be positioned in an establishment noting with reference to FIG. 3 that “an exemplary layout including the table of this invention 70 and a traditional shuffleboard table 72 are shown. First the need for additional space about the perimeter of the traditional shuffleboard table 72 is evident. Moreover, the table of this invention 70, being a rectangular unit, may be placed between additional games 74 and 76. Moreover, it is possible to put the table of this invention 70 against a wall of the establishment.”

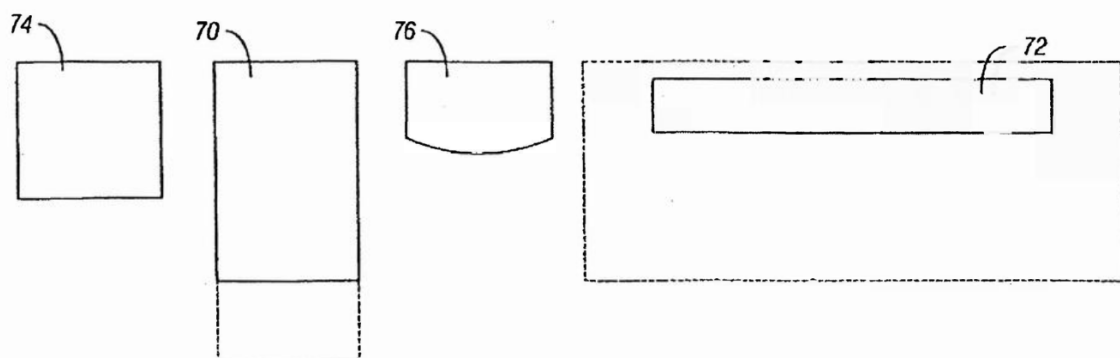


FIG. 3

30 The SILVA documents both disclose shuffleboards with scoreboards with separate throwing and scoring areas. The difference between these documents and the inventive concept of claim 1 of the present application is that the throwing and scoring areas are at the same end.

US8025293 (CRAWFORD & BROOKS)

31 The final prior art document cited by the examiner in the pre-hearing report was US8025293. This document discloses an air hockey table with ledges to hold beverages. This was considered of relevance to Claims 5-7. I will return to this document later.

US2010113197 A1

32 In advance of the hearing, I also identified US2010113197 A1 as being of possible interest in that it discloses a virtual shuffleboard game played from one end where a scoreboard (104) could be mounted to a wall. In the event Mr Arrowsmith conceded that the location of the display was not part of the inventive concept of claim 1 hence there was little discussion of this document other than to note it is a virtual shuffleboard where pucks are thrown along the board and a "final" position for the pucks relative to a virtual scoring area is determined based on the sensed speed and direction of the puck.

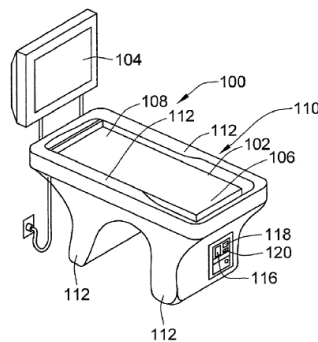


FIG. 1

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

33 I will start with Dale as that is in my opinion the closest prior art. Despite Mr Arrowsmith's spirited arguments, I have concluded that Dale does disclose a shuffleboard game played from a single end. The difference that I have identified between Dale and the inventive concept is that Dale does not disclose arranging the shuffleboard against a wall as required. However, as Mr Arrowsmith appeared to accept at the hearing, there are only a limited number of ways that a shuffleboard as in Dale could be located in a room and positioning it with at right angles with the scoring end against the wall would be an obvious possibility. Indeed, given the preference in Dale for the field of view of the camera to extend up the sliding surface of the shuffleboard from the scoring end of the table towards the throwing position and the need in for the camera if possible to have an uninterrupted field of view, then the skilled person would appreciate that these objectives could be achieved with the shuffleboard arranged orthogonal to and with the scoring end against the wall and

with the camera mounted overhead on the wall. Hence the invention of claim 1 is considered obvious considering Dale.

- 34 I would add that claim 1 would also be obvious in light of the disclosures in Dale and Silva combined both of which are in the same technical field. Indeed, the suggested arrangement of tables in Silva would provide a clear steer for the skilled person in considering how the table of Dale could be arranged.
- 35 The dependent claims were the subject of much less discussion at the hearing. The examiner addressed them in more detail in their pre-hearing report though again the skeleton argument is essentially silent on them. Having considered them carefully I am in agreement with the examiner that claims 2-4 are obvious modifications of the disclosure in Dale and that claims 8-10 are also obvious variations on how multiple tables according to Dale could be arranged. Providing ledges along a games table for holding drink receptacles is known from US8025293 hence claims 5-7 are also considered to be obvious in light of the disclosures in that document and Dale.

Conclusion

- 36 As indicated above, I conclude that the current invention does not meet the requirements of Section 1(1)(b) of the Patents Act 1977 in that none of claims 1-10 not involve an inventive step. The application is therefore refused in its entirety.

Appeal

- 37 Any appeal must be lodged within 28 days after the date of this decision.

Phil Thorpe

Deputy Director, acting for the Comptroller