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AEROSOL PROVISION SYSTEM AND METHOD

Abstract

Described is an aerosol provision system comprises a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from aerosol-generating material to generate aerosol in the aerosol generation region, a second air channel extending at least in part from an airflow controller to a second outlet, and control circuitry configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to determining a condition for providing a notification to the user is met.

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Background/Summary

TECHNICAL FIELD
[0001] The present invention relates to an aerosol provision system and method.
BACKGROUND
[0002] Electronic aerosol provision systems such as electronic cigarettes (e-cigarettes) generally contain an aerosol-generating material, such as a reservoir of a source liquid containing a formulation, typically including nicotine, or a solid material such as a tobacco-based product, from which an aerosol is generated for inhalation by a user, for example through heat vaporisation. Thus, an aerosol provision system will typically comprise an aerosol generator, e.g. a heating element, arranged to aerosolise a portion of aerosol-generating material to generate an aerosol in an aerosol generation region of an air channel through the aerosol provision system. As a user inhales on the device and electrical power is supplied to the aerosol generator, air is drawn into the device through one or more inlet holes and along the air channel to the aerosol generation region, where the air mixes with the vaporised aerosol generator and forms a condensation aerosol. The air drawn through the aerosol generation region continues along the air channel to a mouthpiece, carrying some of the aerosol with it, and out through the mouthpiece for inhalation by the user.
[0003] It is common for aerosol provision systems to comprise a modular assembly, often having two main functional parts, namely an aerosol provision device and an article. Typically, the article will comprise the article aerosol-generating material and the aerosol generator (heating element), while the aerosol provision device part will comprise longer-life items, such as a rechargeable battery, device control circuitry and user interface features. The aerosol provision device may also be referred to as a reusable part or battery section and the article may also be referred to as a consumable, disposable/replaceable part, cartridge or cartomiser.
[0004] The aerosol provision device and article are mechanically coupled together at an interface for use, for example using a screw thread, bayonet, latched or friction fit fixing. When the aerosol-generating material in an article has been exhausted, or the user wishes to switch to a different article having a different aerosol-generating material, the article may be removed from the aerosol provision device and a replacement article may be attached to the device in its place.
[0005] Haptic components or elements can form a part of the aerosol provision system and be used to provide a sensory input or sensation to the user. Haptic components typically take the form of an eccentric rotating mass (ERM), piezoelectric actuator or motor.
[0006] It can be difficult to use and control such haptic components to accurately convey information to the user compared to more conventional output devices, such as lights, microphone and display screen.
[0007] Various approaches are described herein which seek to help address or mitigate some of the issues discussed above.
SUMMARY
[0008] The disclosure is defined in the appended claims.
[0009] In accordance with some embodiments described herein, there is provided an aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region, a second air channel extending at least in part from an airflow controller to a second outlet, and control circuitry configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to determining a condition for providing a notification to the user is met.

[0010] The airflow controller can be one or more of a pneumatic motor, an actuator for operating a valve and a fan. The airflow controller can comprise the actuator for operating the valve, and wherein the second air channel is in fluid communication with a pressurised container containing pressurised air sealed by the valve, wherein the control circuitry is configured to control the actuator to selectively operate the valve of the pressurised container to release pressurised air into the second air channel and to the user via the second outlet.
[0011] The second air channel can extend from the or another air inlet to a second outlet via the airflow controller.
[0012] The aerosol provision system can further comprise a housing, wherein the second outlet is located on a different surface of the housing to the first outlet.
[0013] The second outlet can be configured to direct the puffs of air in a different direction to aerosol delivered via the first outlet.
[0014] A number and/or direction of the puffs of air delivered can be based on the condition for providing the notification.
[0015] The aerosol provision system can further comprise one or more sensors, and wherein the control circuitry is configured to determine the condition is met based on signals received from the one or more sensors. One of the sensors can be configured to measure a state of charge of a power source of the aerosol generating system. One of the sensors can be configured to measure an operating characteristic of the aerosol generator. One of the sensors can be configured to measure an amount of airflow in the first air channel. One of the sensors can be configured to measure an orientation and/or movement of the aerosol provision system. One of the sensors can be configured to detect if the user is touching or in proximity to the aerosol provision system.
[0016] The control circuitry can be configured to determine the condition is met based on a signal received via a communications interface from an external device.
[0017] The aerosol provision system can further comprise an input device, and wherein control circuitry is configured to determine the condition is met based on an input received via the input device.
[0018] The second outlet can comprise a plurality of holes. The control circuitry can be configured to control the airflow controller to deliver one or more puffs of air via a first subset of the plurality of holes based on the condition for providing the notification. The control circuitry can be configured to control the airflow controller to deliver one or more puffs of air via a second subset of the plurality of holes after delivering the one or more puffs of air via the first subset of the plurality of holes. At least one hole in the first subset of holes may not in the second subset of holes.
[0019] In accordance with some embodiments described herein, there is provided an article for an aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region, a second air channel extending at least in part from an airflow controller to a second outlet, wherein the airflow controller is configured to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to a condition for providing a notification to the user being met.
[0020] In accordance with some embodiments described herein, there is provided an aerosol provision device for an aerosol provision system, the aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region, and a second air channel extending at least in part from an airflow controller to a second outlet. The aerosol provision device comprises control circuitry configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to determining a condition for providing a notification to the user is met.
[0021] In accordance with some embodiments described herein, there is provided a method for

operating an aerosol provision system comprising controlling an airflow controller to deliver one or more puffs of air to a user of an aerosol provision system in response to determining a condition for providing a notification to the user is met, the aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region, and a second air channel extending at least in part from an airflow controller to a second outlet. The one or more puffs of air are delivered via the second outlet.
[0022] There is also provided a computer readable storage medium comprising instructions which, when executed by a processor, performs the above method.
[0023] These aspects and other aspects will be apparent from the following detailed description. In this regard, particular sections of the description are not to be read in isolation from other sections.

Description

BRIEF DESCRIPTION OF DRAWINGS
[0024] Embodiments of the invention will now be described, by way of example only, with reference to accompanying drawings, in which:
[0025] FIG. **1** is a schematic diagram of an aerosol provision system;
[0026] FIGS. **2**A, **2**B and **2**C are a schematic diagrams of an aerosol provision system;
[0027] FIGS. **3**A and **3**B are a schematic diagrams of an article for an aerosol provision system;
[0028] FIG. **4** is a flow diagram of a method for operating an aerosol provision system.
DETAILED DESCRIPTION
[0029] Aspects and features of certain examples and embodiments are discussed/described herein. Some aspects and features of certain examples and embodiments may be implemented conventionally and these are not discussed/described in detail in the interests of brevity. It will thus be appreciated that aspects and features of articles and systems discussed herein which are not described in detail may be implemented in accordance with any conventional techniques for implementing such aspects and features.
[0030] The present disclosure relates to aerosol provision systems, which may also be referred to as vapour provision systems, such as e-cigarettes. Throughout the following description the term “e-cigarette” or “electronic cigarette” may sometimes be used, but it will be appreciated this term may be used interchangeably with aerosol provision system and electronic aerosol provision system.
[0031] As noted above, aerosol provision systems (e-cigarettes) often comprise a modular assembly including both a reusable part (aerosol provision device) and a replaceable (disposable) or refillable cartridge part, referred to as an article. Systems conforming to this type of two-part modular configuration may generally be referred to as two-part systems or devices. It is also common for electronic cigarettes to have a generally elongate shape. For the sake of providing a concrete example, certain embodiments of the disclosure described herein comprise this kind of generally elongate two-part system employing refillable cartridges. However, it will be appreciated the underlying principles described herein may equally be adopted for other electronic cigarette configurations, for example modular systems comprising more than two parts, as devices conforming to other overall shapes, for up example based on so-called box-mod high performance devices that typically have a more boxy shape, or even systems comprising one part where the aerosol provision device and article are integrally formed with one another.
[0032] FIG. **1** is a highly schematic diagram (not to scale) of an example aerosol provision system **10**, such as an e-cigarette, to which embodiments are applicable. The aerosol provision system **10** has a generally cylindrical shape, extending along a longitudinal or y axis as indicated by the axes (although aspects of the invention are applicable to e-cigarettes configured in other shapes and arrangements), and comprises two main components, namely an aerosol provision device **20** and an

article **30**.
[0033] The article **30** comprises or consists of aerosol-generating material **32**, part or all of which is intended to be consumed during use by a user. An article **30** may comprise one or more other components, such as a reservoir (an aerosol-generating material storage area **39**), an aerosol-generating material transfer component **37**, an aerosol generation region, a housing, a wrapper, a mouthpiece **35**, a filter and/or an aerosol-modifying agent.
[0034] An article **30** may also comprise an aerosol generator **36**, such as a heating element, that emits heat to cause the aerosol-generating material **32** to generate aerosol in use. The aerosol generator **36** may, for example, comprise combustible material, a material heatable by electrical conduction, or a susceptor. It should be noted that it is possible for the aerosol generator **36** to be part of the aerosol provision device **20** and the article **30** then may comprise the reservoir (aerosol-generating material storage area **39**) for the aerosol-generating material **32** such that, when the article **30** is coupled with the aerosol provision device **20**, the aerosol-generating material **32** can be transferred to the aerosol generator **36** in the aerosol provision device **20**. It should be appreciated that the aerosol generator **36** may encompass an aerosol generator other than a heater. More generally, an aerosol generator is an apparatus configured to cause aerosol to be generated from the aerosol-generating material. In some other embodiments, the aerosol generator is configured to cause an aerosol to be generated from the aerosol-generating material without heating. For example, the aerosol generator may be configured to subject the aerosol-generating material to one or more of vibration, increased pressure, or electrostatic energy.
[0035] Aerosol-generating material **32** is a material that is capable of generating aerosol, for example when heated, irradiated or energized in any other way. The aerosol-generating material **32** may, for example, be in the form of a solid, liquid or gel which may or may not contain an active substance and/or flavourants. In some embodiments, the aerosol-generating material **32** may comprise an “amorphous solid”, which may alternatively be referred to as a “monolithic solid” (i.e. non-fibrous). In some embodiments, the amorphous solid may be a dried gel. The amorphous solid is a solid material that may retain some fluid, such as liquid, within it. In some embodiments, the aerosol-generating material **32** may for example comprise from about 50 wt %, 60 wt% or 70 wt % of amorphous solid, to about 90 wt %, 95 wt% or 100 wt % of amorphous solid.
[0036] The aerosol-generating material **32** comprises one or more ingredients, such as one or more active substances and/or flavourants, one or more aerosol-former materials, and optionally one or more other functional materials such as pH regulators, colouring agents, preservatives, binders, fillers, stabilizers, and/or antioxidants.
[0037] The active substance as used herein may be a physiologically active material, which is a material intended to achieve or enhance a physiological response. The active substance may for example be selected from nutraceuticals, nootropics, and psychoactives. The active substance may be naturally occurring or synthetically obtained. The active substance may comprise for example nicotine, caffeine, taurine, theine, vitamins such as B6 or B12 or C, melatonin, cannabinoids, or constituents, derivatives, or combinations thereof. The active substance may comprise one or more constituents, derivatives or extracts of tobacco, cannabis or another botanical.
[0038] In some embodiments, the active substance comprises nicotine. In some embodiments, the active substance comprises caffeine, melatonin or vitamin B12.
[0039] The aerosol provision device **20** includes a power source **14**, such as a battery, configured to supply electrical power to the aerosol generator **36**. The power source **14** in this example is rechargeable and may be of a conventional type, for example of the kind normally used in electronic cigarettes and other applications requiring provision of relatively high currents over relatively short periods. The power source **14** may be recharged through the charging port (not illustrated), which may, for example, comprise a USB connector.
[0040] The aerosol provision device **20** includes device control circuitry **28** configured to control the operation of the aerosol provision system **10** and provide conventional operating functions in

line with the established techniques for controlling aerosol provision systems such as electronic cigarettes. The device control circuitry (processor circuitry) **28** may be considered to logically comprise various sub-units/circuitry elements associated with different aspects of the electronic cigarette's operation. For example, depending on the functionality provided in different implementations, the (device) control circuitry **28** may comprise power source control circuitry for controlling the supply of electrical power from the power source **14** to the aerosol generator **36**, user programming circuitry for establishing configuration settings (e.g. user-defined power settings) in response to user input, as well as other functional units/circuitry associated functionality in accordance with the principles described herein and conventional operating aspects of electronic cigarettes. It will be appreciated the functionality of the (device) control circuitry **28** can be provided in various different ways, for example using one or more suitably programmed programmable computer(s) and/or one or more suitably configured application-specific integrated circuit(s)/circuitry/chip(s)/chipset(s) configured to provide the desired functionality.

[0041] The aerosol provision device **20** has an interface configured to receive the article **30**, thereby facilitating the coupling between the aerosol provision device **20** and the article **30**. The interface is located on a surface of the aerosol provision device **20**.

[0042] The housing of the article **30** has a surface configured to be received by the interface on the aerosol provision device **20** in order to facilitate coupling between the article **30** and the aerosol provision device **20**. The surface of the article may be configured to be a size and/or shape that mirrors the size and/or shape of the interface in order to facilitate coupling between the aerosol provision device **20** and the article **30**. For example, the interface may comprise a cavity, chamber or other space on the surface of the aerosol provision device **20**. The surface of the article **30** can then be configured to be a size and shape that mirrors the size and shape of the cavity in order for the surface of the article **30** to be inserted into the cavity.

[0043] Although not illustrated, the interface of the aerosol provision device **20** and the surface of the article **30** may have complementary features to reversibly attach and mate the article **30** to the aerosol provision device **20**, such as a screw thread, bayonet fitting, latched or friction fit fixing or other fastening means.

[0044] The interface also comprises one or more connectors, such as contact electrodes, connected via electrical wiring to the control circuitry **28** and the power source **14**. The article **30** also comprises one or more connectors, such as contact electrodes, connected via electrical wiring to the aerosol generator **36**. In use, the article **30** is received by the interface of the aerosol provision device **20**, thereby coupling the aerosol provision device **20** and the article **30**. This results in the connectors on the article **30** mating with the connectors on the aerosol provision device **20**, thereby allowing electrical power and electrical current to be supplied from the power source **14** of the aerosol provision device **20** to the aerosol generator **36** of the article **30**.

[0045] The housing of the article **30** has a surface configured to engage with an interface on the aerosol provision device **20** in order to facilitate coupling between the article **30** and the aerosol provision device **20**. In other words, the aerosol provision device **20** is configured to receive the article **30**, via the interface, and the surface of the article is proximate to the interface on the aerosol provision device **20** when the article **20** is received by the interface.

[0046] The aerosol provision system **10** includes one or more air inlets **21**, located on one or more of the aerosol provision device **20** and the article **30**. In use, as a user inhales on the mouthpiece **35**, air is drawn into the aerosol provision system **10** through the air inlets **21** and along an air channel **23** to the aerosol generator **36**, where the air mixes with the vaporised aerosol-generating material **32** and forms a condensation aerosol. The air drawn through the aerosol generator **36** continues along the air channel **23** to a mouthpiece **35**, carrying some of the aerosol with it, and out through the mouthpiece **35** through an outlet **33** for inhalation by the user.

[0047] By way of a concrete example, the article **30** comprises a housing (formed, e.g., from a plastics material), a reservoir (aerosol-generating material storage area **39**) formed within the

housing for containing the aerosol-generating material **32** (which in this example may be a liquid which may or may not contain nicotine), an aerosol-generating material transfer component **37** (which in this example is a wick formed of e.g., glass or cotton fibres, or a ceramic material configured to transport the aerosol-generating material **32** from the aerosol-generating material storage area **39** using capillary action), an aerosol generation region containing the aerosol generator **36**, and a mouthpiece **35**. Although not shown, a filter and/or aerosol modifying agent (such as a flavour imparting material) may be located in, or in proximity to, the mouthpiece **35**. The aerosol generator **36** of this example comprises a heater element formed from an electrically resistive material (such as NiCr8020) spirally wrapped around the aerosol-generating material transfer component **37**, and located in an air channel **23**. The area around the heating element and wick combination is the aerosol-generating area of the article **30**.

[0048] FIGS. **2**A, **2**B and **2**C are schematic diagrams of another aerosol provision system **10**, where the same reference signs have been used for like elements between the aerosol provision system **10** illustrated in FIG. **1** and the aerosol provision system **10** illustrated in FIGS. **2**A, **2**B and **2**C. As per the aerosol provision system **10** illustrated in FIG. **1**, the aerosol provision system **10** illustrated in FIGS. **2**A, **2**B and **2**C comprise an aerosol provision device **20** and an article **30**.

[0049] As described above with reference to FIG. **1**, the aerosol provision system **10** illustrated in FIGS. **2**A, **2**B and **2**C includes one or more air inlets **21**, located on one or more of the aerosol provision device **20** and the article **30**. A first air channel **23** extends from the air inlet **21** to a first outlet **33** via an aerosol generation region (not illustrated). In other words, air enters the first air channel **23** through the air inlet(s) **21**, flows along the first air channel **23** to aerosol generation region, then continues along the first air channel **23** to the first outlet **33**. It should be appreciated that the first air channel **23** may comprise a first part in the aerosol provision device **20** and a second part in the article **30**. The aerosol generator **36** is located in the aerosol generation region such that aerosol is generated in the aerosol generation region by the aerosol generator **36** (for example by heating aerosol-generating material **32**). The aerosol-generating material **32** may be provided to the aerosol generator **36** from the aerosol-generating material storage area **39** via the aerosol-generating material transfer component **37**.

[0050] In other words, in use, as a user inhales on the mouthpiece **35**, air is drawn into the aerosol provision system **10** through the air inlets **21** and along the first air channel **23** to the aerosol generator **36**, where the air mixes with the vaporised aerosol-generating material **32** and forms a condensation aerosol. The air drawn through the aerosol generator **36** continues along the first air channel **23** to the first outlet **33**, carrying some of the aerosol with it, and out through the first outlet **33** for inhalation by the user. As illustrated in FIGS. **2**A, **2**B and **2**C, the first outlet **33** may be located on the mouthpiece **35** of the article **30** such that the first outlet **33** is located in the mouth of the user when the user inhales on the aerosol provision system **10**.

[0051] The aerosol provision system **10** illustrated in FIGS. **2**A, **2**B and **2**C also includes a second air channel **29**. In each of FIGS. **2**A, **2**B and **2**C, the second air channel **29** extends at least in part from an airflow controller **12** to a second outlet **27**. In other words, in the second air channel **29** air flows from the airflow controller **12** to the second outlet **27**.

[0052] In the aerosol provision systems **10** illustrated in FIGS. **2**A and **2**B, the second air channel extends from either the air inlet **21** or another air inlet **25** to a second outlet **27** via an airflow controller **12**. In other words, air enters the second air channel **29** either through the same air inlet **21** as the first air channel **23** or through another, separate, air inlet **25**. The air flows along the second air channel **29** to the airflow controller **12**, then continues along the second air channel **29** to the second outlet **27**. Hence, the second air channel **29** can be considered to have a first part of the second air channel **29** extending from the air inlet to the airflow controller **12** and a second part of the second air channel **29** extending from the airflow controller **12** to the second outlet **27**.

[0053] FIG. **2**A illustrates an aerosol provision system **10** where the air inlet **21** to the second air channel **29** is the same air inlet **21** as to the first air channel **23**. As shown in FIG. **2**A, air enters the

air inlet **21** (two inlets are shown in FIG. **2**A) then the first air channel **23** and second air channel **29** branch off such that air entering the air inlet **21** can flow along either the first air channel **23** or the second air channel **29**. FIG. **2**B illustrates an aerosol provision system **10** where the air inlet **21** to the first air channel **23** is separate from the air inlet **25** to the second air channel **29**. In other words, the first air channel **23** extends from a first air inlet **21** to outlet a first outlet **33**, and the second air channel **29** extends from a second air inlet **25** to a second outlet **27**. In this case, the first air channel **23** and the second air channel **29** are separate, such that air cannot pass from the first air channel **23** to the second air channel **29** and vice versa. Although the second air inlet **25** is illustrated in FIG. **2**B as a single air inlet, it will be appreciated that the second air channel **29** may have a plurality of air inlets, where one or more of the plurality of air inlets are separate from the first and channel **23**. FIG. **2**C illustrates an aerosol provision system **10** where second air channel **29** does not have an air inlet. Instead, the second air channel **29** is in fluid communication with a pressurised container **16**. The pressurised container **16** contains pressurised air sealed by a valve. Air from the pressurised container **16** can flow to the second outlet **25** via the airflow controller **12** as described in more detail below. The pressurised container **16** may be configured to be removable from the aerosol provision system **10**, for example to allow the pressurised container **16** to be replaced once all or substantially all of the air in the pressurised container **16** has been depleted. For example, a panel, door or other opening in a housing of the aerosol provision system **10** may be provided to allow the user to access the pressurised container **16** so that it can be inserted into and removed from the aerosol provision system **10** as required. Although the first air channel **23** is illustrated in FIG. **2**C as having two air inlets **21**, it will be appreciated that the first air channel **23** may have a single air inlet or more than two air inlets.

[0054] It will be appreciated that in both the aerosol provision systems **10** illustrated in FIGS. **2**A, **2**B and **2**C the first outlet **33** and the second outlet **27** are separate such that air (and vapour) exits the first air channel **23** via the first outlet **33** separately from the air exiting the second channel **29** by the second outlet **27**. Equally, air flowing along the second air channel **29** does not pass through the aerosol generation region, and air flowing along the first air channel **23** does not pass through the airflow controller **12**.

[0055] The airflow controller **12** is configured to deliver one or more puffs of air to a user of the aerosol provision system **10** via the second outlet **27**. The airflow controller can be one or more of a pneumatic motor, an actuator for a valve, a fan or any suitable airflow device for controlling the flow of air along the second air channel **29** and out of the second outlet **27**.

[0056] The airflow controller **12** can be operatively coupled to the power source **14** of the aerosol provision device **20** in order to receive electrical power, and the airflow controller **12** is operatively coupled to the control circuitry **28** such that the control circuitry **28** can be configured to control the airflow controller **12**. In other words, the control circuitry **28** is configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system **10** via the second outlet **27**.

[0057] For example, where the airflow controller **12** is a pneumatic motor or fan, the control circuitry **28** can be configured to control the pneumatic motor or fan by selectively controlling the power supplied to the pneumatic motor or fan and/or by changing an amount or magnitude of power supplied to the pneumatic motor or fan. The pneumatic motor and fan can be located in the second air channel **29** such that operation of the pneumatic motor (i.e. rotation of the rotor) or fan (i.e. by rotation of the fan blades) causes air to be drawn into the pneumatic motor or fan and expelled out of the pneumatic motor or fan to the second outlet **27**. The duration of the puff is determined by the length of time that the pneumatic motor or fan is operating, whilst the strength or intensity of the puff is determined by the rotational speed of the pneumatic motor or fan (which can be related to the amount of power delivered to the pneumatic motor or fan). As it will be appreciated, multiple puffs of air can be delivered to the user by selectively operating (e.g. supplying power to) the pneumatic motor or fan to cause the rotor to rotate and stop rotating

respectively.
[0058] Equally, where the airflow controller **12** is an actuator for a valve, the control circuitry **28** is configured to control the actuator to selectively operate the valve to allow air to pass through the valve such that air can flow along the second air channel **29** to the second outlet **27**. In other words, when the valve is closed, no air can pass through the valve and when the valve is open air can pass through the valve. The control circuitry **28** controls the actuator to operate the valve to selectively open and close the valve. The duration of the puff is determined by the length of time that the valve is open. As it will be appreciated, multiple puffs of air can be delivered to the user by controlling the actuator to selectively operate (e.g. open and close) the valve).
[0059] As described above in relation to FIG. **2**C, the second air channel **29** can be in fluid communication with a pressurised container **16**. In this case, the airflow controller **12** comprises an actuator for operating the valve that seals the pressurised container **16**. The control circuitry **28** is then configured to control the actuator to selectively operate the valve to release pressurised air into the second air channel **29** and to the user via the second outlet **27**.
[0060] FIGS. **3**A and **3**B are schematic diagrams of articles **30** for aerosol provision systems **10**, such as the aerosol provision systems **10** illustrated in FIGS. **1**, **2**A, **2**B and **2**C, where the same reference signs have been used for like elements between the articles illustrated in FIGS. **1**, **2**A, **2**B and **2**C and the articles illustrated in FIGS. **3**A and **3**B. As per the articles **30** illustrated in FIGS. **1**, **2**A, **2**B and **2**C, the articles **30** illustrated in FIGS. **3**A and **3**B each comprise a reservoir (aerosol-generating material storage area **39**), an aerosol-generating material transfer component **37**, an aerosol generator **36** and a mouthpiece **35**. As set out above, the aerosol generator **36** is located in an aerosol generation region **34**, such that aerosol is generated in the aerosol generation region **34** by the aerosol generator **36** heating (or otherwise aerosolising) the aerosol-generating material **32**.
[0061] As described above with reference to FIGS. **2**A and **2**B, the article **30** illustrated in FIGS. **3**A and **3**B includes a first air channel **23** extending from an air inlet **31** to a first outlet **33** via the aerosol generation region **34**, and a second air channel **29** extending from either the air inlet **21** or another air inlet **25** to a second outlet **27** via an airflow controller **12**.
[0062] Like FIG. **2**A, FIG. **3**A illustrates an article **30** where the air inlet **31** to the second air channel **29** is the same air inlet **31** as to the first air channel **23**. As shown in FIG. **3**A, air enters the air inlet **31** then the first air channel **23** and second air channel **29** branch off such that air entering the air inlet **31** can flow along either the first air channel **23** or the second air channel **29**. Like FIG. **2**B, FIG. **3**B illustrates an article **30** where the air inlet **31** to the first air channel **23** is separate from the air inlet **38** to the second air channel **29**. In other words, the first air channel **23** extends from a first air inlet **31** to a first outlet **33**, and the second air channel **29** extends from a second air inlet **38** to a second outlet **27**. In this case, the first air channel **23** and the second air channel **29** are separate, such that air cannot pass from the first air channel **23** to the second air channel **29** and vice versa. Although the first air inlet **31** and the second air inlet **38** are illustrated in FIGS. **2**B and **3**B as single air inlets, it will be appreciated that the first air channel **23** may have a plurality of the air inlets and the second air channel **29** may have a plurality of air inlets, where one or more of the plurality of air inlets for the second air channel **29** are separate from the first air channel **23**.
[0063] Although not illustrated, it will be appreciated that the pressurised container **16** described above with reference to FIG. **2**C may be located in the article **30**. In this case, the pressurised container **16**, airflow controller (actuator for operating a valve) **12** and the second outlet **27** are each located in/on the article **30** such that the second air channel **29** is entirely located in the article **30**. As described above with reference to FIG. **2**C, the second air channel **29** then extends from the pressurised container **16** to the second outlet **27** via the airflow controller **12**. The operation of the airflow controller **12** and pressurised container **16** is then the same as described above with respect of FIG. **2**C.
[0064] As described above with reference to FIGS. **2**A, **2**B and **2**C, it will be appreciated that in both the articles **30** illustrated in FIGS. **3**A and **3**B, the first outlet **33** and the second outlet **27** are

separate such that air (and vapour) exits the first air channel **23** via the first outlet **33** separately from the air exiting the second channel **29** by the second outlet **27**. Equally, air flowing along the second air channel **29** does not pass through the aerosol generation region **34**, and air flowing along the first air channel **23** does not pass through the airflow controller **12**.

[0065] As described above, the aerosol provision system **10** can comprise a housing containing all the components of the aerosol provision system **10** described above. The air inlets **21**, **25**, **33**, **38** and the outlets **33**, **27** are located on surfaces of the housing such that air can pass from outside the housing into the first air channel **23** and the second air channel **29** via the air inlets **21**, **25**, **33**, **38** and air can pass from the first air channel **23** and the second and channel **29** out of housing via the outlets **33**, **27** as described above.

[0066] Although the first air inlet **33** and the second air inlet **38** are illustrated as being on the same surface as each other (the negative y-surface, or the surface that engages with the aerosol provision device **20**), the first air inlet **33** and the second air inlet **38** may each be located on a different surface, such as one of the side surfaces of the article **30** or the first air inlet **33** and the second air inlet **38** may be located on different surfaces. Equally, the first air inlet **33** and the second air inlet **38** may be located on different portions of the aerosol provision system **10**. For example, the first air inlet **33** may be located on the article **30** whilst the second air inlet **25** is located on the aerosol provision device **20**. In this case, the first air channel **23** may be entirely located inside the article **30** whilst the second air channel **29** may be entirely located inside the aerosol provision device **20**.

[0067] The second outlet **27** can be located on a different surface of the housing to the first outlet **33**. For example, as illustrated in FIGS. **2**A, **2**B and **2**C, the first outlet **33** can be located on a surface of the article **30**, such as on the mouthpiece **35**, whilst the second outlet **27** can be located on a surface of the aerosol provision device **20**. Equally, as illustrated in FIGS. **3**A and **3**B, the first outlet **33** can be located on a first surface of the article **30**, whilst the second outlet **27** can be located on a different surface of the article **30**. In FIGS. **3**A and **3**B, the first outlet **33** is located on a top surface of the article **30** (i.e. a surface aligned along the x-axis), whilst the second outlet **27** is located on a side surface of the article **30** (i.e. surface aligned along the y-axis).

[0068] The second outlet **27** can also be configured to direct the puffs of air in a different direction to aerosol delivered via the first outlet **33**. In other words, air exiting the second outlet **27** is directed in a different direction to aerosol exiting the first outlet **33**. As described above, aerosol exits the first outlet **33** to be delivered into the mouth of the user, for example out of the mouthpiece **35**. The second outlet **27** can be configured to direct the puffs of air in a different direction, for example such that the puffs of air are delivered to the hand of the user when the user is touching or otherwise holding the aerosol provision system **10**. This can be achieved by the second outlet **27** being located on a different surface of the housing of the aerosol provision system **10** as described above. Equally, this can also be achieved by the second outlet **27** being tilted, skewed or otherwise orientated in a different direction to the first outlet **33**, such that air exits the second outlet **27** in a different direction to aerosol exiting the first outlet **33**. For example, although the first outlet **33** and the second outlet **27** illustrated in FIGS. **2** and **3** are shown to be orientated perpendicular to the surface of the housing of the aerosol provision system **10** they are located on, this is not essential, and one or more of the first outlet **33** and the second outlet **27** can be orientated at a different angle to the surface of the housing of the aerosol provision system **10** they located on. For example, the first outlet **33** may be orientated perpendicular to the surface whilst the second outlet **27** is orientated at a 45° angle to the surface, or the first outlet **33** may be orientated at a −45° angle to the surface whilst the second outlet **27** is orientated at a 60° angle to the surface.

[0069] As illustrated in FIG. **3**A, the second outlet **27** can comprise the plurality of holes. In other words, air exiting the second air channel **29** via the second outlet **27** can do so out of multiple holes. As described above, the second air channel **29** still extends from the air inlet **21**, **31** or a second inlet **25**, **38** to the airflow controller **12**, and then from the airflow controller to the second outlet **27** such that none of the air exiting the plurality of holes has passed through the aerosol

generation region **34**, and all of the air exiting the plurality of holes has passed through the airflow controller **12**. As illustrated in FIG. **3**A, the airflow controller **12** may have a plurality of outlets such that separate flow paths are created between the airflow controller **12** and each of the plurality of holes. Alternatively, the second air channel **29** may exit the airflow controller **12** at a single outlet, then branch off to each of the plurality of holes. Although there are three holes illustrated in FIG. **3**A, it will be appreciated that fewer holes may be provided, i.e. 2, or more holes provided, for example 5, 10, 20. Although described herein as holes, it will be appreciated that the plurality of holes may have any cross-sectional shape, and not be limited to just a circular cross-section. Equally, although FIG. **3**A illustrates an article **30** with a single air inlet **31** and the second outlet **27** comprising a plurality of holes, it will be appreciated that this concept can be applied to the any of the other examples illustrated, such as those in FIG. **2**A, **2**B, **2**C and **3**B. For example, an aerosol provision system **10**, such as the aerosol provision system **10** illustrated in FIG. **2**B, can be provided with an aerosol provision device **20** comprising a first air inlet **21**, a second air inlet **25** and the second outlet **27** comprising a plurality of holes.

[0070] The control circuitry **28** is configured to control the airflow controller **12** to deliver one or more puffs of air to a user of the aerosol provision system **10** via the second outlet **27** in response to determining a condition for providing a notification to the user is met. The condition for providing the notification to the user is defined such that the notification (i.e. the one or more puffs of air delivered from the second outlet **27**) is detected or felt by the user and conveys the necessary message or information to the user. The condition for providing a notification to the user is met may be based on one or more criteria, such as whether an inhalation is currently taking place or about to take place, the duration and/or strength of the inhalation, time since the last inhalation, whether the user is touching or holding the aerosol provision system **10**, whether the aerosol generator **36** is being supplied with electrical power, whether the aerosol provision system **10** is on or otherwise operational, the state of charge of the power source **14**, the temperature or an operating characteristic of the aerosol generator **36**, an orientation or movement of the aerosol provision system **10**.

[0071] For example, it will be appreciated that, in order for the notification (i.e. the one or more puffs of air delivered from the second outlet **27**) to be detected or felt by the user, the user must be close to or touching the aerosol provision system **10**. One of the criteria can therefore be that the user is touching or otherwise holding the aerosol provision system **10**.

[0072] If the notification (i.e. the one or more puffs of air delivered from the second outlet **27**) is delivered during an inhalation, it will be felt or detected by the user during the inhalation, and therefore the user will associate the notification with the inhalation, for example as feedback that the aerosol provision system **10** is generating aerosol/operating. Where the one of the criteria is the and/or strength of the inhalation, providing the notification in response to the inhalation has exceeded a particular duration or strength can inform the user, respectively, that they should stop inhaling, or reduce the strength of the inhalation. Equally, the user may associate a notification delivered when an inhalation is not occurring as related to a property of the aerosol provision system **10**, such as a state of charge of the battery or time since the last inhalation.

[0073] Since the airflow controller **12** requires electrical power from the power source **14** in order to deliver the one or more puffs of air, if the state of charge of the power source **14** is too low, there may not be sufficient charge available to operate the airflow controller **12**. One of the criteria can therefore be that the state of charge of the power source **14** is above a particular level, such as 5, 10 or 20%. Equally, one of the criteria can be that the state of charge of the power source **14** has reached a particular level, such as 5%. In this case, the notification delivered to the user can indicate that the power source **14** has a low state of charge and needs to be recharged.

[0074] The condition for providing a notification to the user may be met when all of the criteria are met, when at least a certain number of criteria are met, such as 1, half or 75%, or a given combination of criteria being met, such as the user touching/holding the aerosol provision system

and the state of charge of the power source being above a particular level, for example 10%, or an inhalation currently taking place (e.g. the aerosol generator **36** being supplied with electrical power) and the duration of the inhalation being greater than a predetermined time, such as 5 or 10 seconds.

[0075] A number, duration and/or direction of the puffs of air delivered can be based on the condition for providing the notification. In other words, in response determining that the condition for providing the notification being met, the control circuitry **28** can be configured to control the airflow controller **12** to deliver a number of puffs of air and/or direct the one or more puffs of air in a particular direction. For example, three puffs of air can be delivered by the airflow controller **12** with a predetermined gap between each other there, such as one second. Equally, the puffs of air can be delivered at a 45° angle to the surface of the aerosol provision system **10** on which the second outlet **27** is located. For example, the second outlet **27** can comprise a movable nozzle or other flow director that can be actuated or otherwise moved to control the direction that the puff of air is delivered out of the second outlet **27**.

[0076] The number and/or duration of the puffs of air delivered can be different for different conditions and/or criteria for providing a notification. For example, when a condition is the aerosol provision system **10** being turned on, a single puff of air may be delivered by the airflow controller **12**, whilst when the condition is an inhalation taking place, the duration of the puff of air correspond to the duration of the inhalation. In other words, air is delivered from the second outlet **27** by the airflow controller **12** continuously as an inhalation takes place. Equally, the number, duration and/or duration of the puffs of air delivered relate to or be indicative of the condition and/or criteria for providing the notification. For example, where the condition or criteria for providing the notification relates to the state of charge of the power source **14**, the number and/or duration of puffs may be indicative of the state of charge of the power source **14**, such as four puffs of air when the power source **14** is fully charged, three puffs of air when the power source is 75% charged, two puffs of air when the power source is 50% charged, one puff of air when the power source is 25% charged, and no puffs of air delivered when the power source has a low charge, for example less than 10%. Equally, a four second puff of air may be delivered when the power source **14** is fully charged, a three second puff of air delivered when the power source is 75% charged, a two second puff of air delivered when the power source is 50% charged, a one second puff of air delivered when the power source is 25% charged, and no puffs of air delivered (or plurality of puffs of air delivered, such as 4) when the power source has a low charge, for example less than 10%.

[0077] As described above with reference to FIG. **3**A, the second outlet **27** can comprise a plurality of holes. The control circuitry **28** can be configured to control the airflow controller **12** to deliver one or more puffs of air via a first subset the plurality of holes based on the condition for providing an indication. In other words, in response to determining that the condition for providing the notification is met, the control circuitry **28** can be configured to control the airflow controller **12** to deliver one or more puffs of air via first subset of the polarity of holes such that puffs of air are not delivered from one or more holes that are not part of the first subset. In other words, the first subset of holes does not include all of the polarity of holes. For example, in the article **30** illustrated in FIG. **3**A, the first subset of holes may correspond to one hole, such as the bottom hole (hole furthest from the mouthpiece along the y-axis), such that one or more puffs of air are only delivered from the bottom hole in response to the condition being met. Equally, the first subset of holes may correspond to the top and middle holes (the two holes closest to the mouthpiece along the y-axis).

[0078] The control circuitry **28** can be configured to control the airflow controller **12** to deliver one or more puffs of air via a second subset of the polarity of holes after delivering the one or more puffs of air via the first subset of the polarity of holes. In other words, one or more puffs of air are delivered via the first subset of holes, then one or more puffs of air are delivered via a second subset of holes. At least one hole in the first subset of holes may not be in the second subset of holes, such that the first subset of holes and the second subset of holes are a different combination

of the polarity of holes.
[0079] The number of holes and the particular holes in the first and second subset of holes can be based on the condition for providing a notification. The number of holes and the particular holes in the first and second subset of holes can also be different for different conditions and/or criteria for providing a notification. For example, when a condition is the aerosol provision system **10** being turned on, the first subset of holes may correspond to a single hole, such that one or more puffs of air are delivered from a single hole in response to the aerosol provision system **10** being turned on, whilst when the condition is an inhalation taking place, the first subset of holes may correspond to a single hole, and the second subset of holes corresponds to two holes, such that one or more puffs of air are delivered from a single hole, then two holes as an inhalation takes place.
[0080] Equally, the number of holes and the particular holes in the first and second subset of holes can relate to or be indicative of the condition for providing the notification. For example, where the condition for providing notification relates to the state of charge of the power source **14**, the first subset of holes may correspond to a single hole and the second subset of holes corresponds to two holes, and a puff of air delivered from the first subset of holes and then a puff of air delivered from the second subset of holes to indicate the power source **14** is fully charged, a puff of air delivered from the first subset of holes only (i.e. no air delivered from second subset of holes) when the power source is 50% charged, and no puffs of air delivered when the power source has a low charge, for example less than 10%.
[0081] The control circuitry **28** can be configured to determine the condition is met based on signals received from the one or more sensors. The aerosol provision system **10** illustrated in FIG. **1** also comprises one or more sensors **24**. The one or more sensors **24** can be located on or within the aerosol provision device **20** and/or the article **30**. The one or more sensors **24** can be operatively coupled to the power source **14** of the aerosol provision device **20** in order to receive electrical power, and the one or more sensors **24** can be operatively coupled to the control circuitry **28** such that the control circuitry **28** can be configured to control the one or more sensors **24**. The control circuity **28** is then configured to determine the condition is met based on signals received from the one or more sensors **24**. In other words, the control circuit **28** is configured to read or otherwise receive readings from the one or more sensors **24**, and use the readings to determine if the condition is met. The control circuitry **28** can receive readings from the sensors **24** periodically, for example every second, minute or five minutes, or the control circuitry **28** can send a request to the sensors **24** for the one or more readings. Equally, the control circuitry **28** can be configured to determine if the condition and/or one or more of the criteria are met in response to an event, for example one or more readings from the sensors **24** changing.
[0082] One of the sensors can be configured to measure a state of charge of the power source **14** of the aerosol generating system **10**. For example, one of the sensors **24** can comprise a voltmeter and/or current sensor configured to measure, respectively, an amount of voltage and current for the power source **14** in order to determine the state of charge (i.e. the charge remaining) in the power source **14**. In this case, the condition could relate to the state of charge of the power source **14**. For example, the airflow controller may only be enabled when the state of charge of the power source **14** is above a certain level, such as 5, 10 or 20%. As it will be appreciated, the airflow controller requires electrical power from the power source **14** in order to deliver the one or more puffs of air. If the state of charge of the power source **14** is too low, there may not be sufficient charge available to operate the airflow controller.
[0083] One of the sensors **24** can be configured to measure an operating characteristic of the aerosol generator **36**. For example, a thermocouple or other temperature sensor may to located on or proximate to the aerosol generator **36**, for example inside the aerosol generation region **32**. It will be appreciated that the temperature of the aerosol generator **36** and the temperature within the aerosol generation region **32** will increase during an inhalation, since electrical power is supplied to the aerosol generator **36** from the power source **14**, whilst the temperature of the of the aerosol

generator **36** and the temperature within the aerosol generation region **32** will be lower, for example substantially close to ambient temperature, when an inhalation is not occurring. Such changes in temperature can be measured or otherwise detected by the temperature sensor, such that the measurements or readings from the temperature sensor are indicative of whether an inhalation is currently taking place. The temperature sensor can be configured to measure the temperature of the aerosol generator **36** by measuring the surface temperature of the aerosol generator **36** or the air temperature proximate to the aerosol generator, such as the air temperature within the aerosol generation region **32**. The operating characteristic of the aerosol generator **36** can also relate to the current or power supplied to the aerosol generator **36**, an amount of airflow around or proximate to the aerosol generator **36**, or any other suitable operating characteristic of the aerosol generator **36**.

[0084] One of the sensors **24** can be configured to measure an amount of airflow in the first air channel **23**. For example, a flow sensor or microphone may be located in or on a wall of the first air channel **23** and configured to measure or otherwise detect a flow of air within the first air channel **23**. As it will be appreciated, the air flow in the first air channel **23** will increase when an inhalation is currently taking place (i.e. when the user inhales on the aerosol provision system **10**). When an inhalation is not taking place (i.e. when the user is not inhaling on the aerosol provision system **10**) the amount of airflow in the first air channel **23** may be low or substantially zero. Such changes in airflow can be measured or otherwise detected by the airflow sensor, such that the measurements or readings from the airflow sensor are indicative of whether an inhalation is currently taking place. The amount of airflow may relate to a property of the airflow, such as a mass flow or flow velocity, and therefore provide an indication as to the strength of an inhalation as well as whether an inhalation is currently taking place. Equally, the amount of airflow may be an indication as to whether there is any airflow, for example 0 for no airflow detected/measured and 1 for airflow detected/measured, and therefore only provide an indication as to whether an inhalation is currently taking place. In response to determining that an inhalation has stated, the control circuitry **28** can be configured to start a timer in order to record to the duration of the inhalation. Equally, the control circuitry **28** can be configured to start another timer in response to determining that an inhalation has finished in order to record the time between inhalations.

[0085] One of the sensors **24** can be configured to detect if the user is touching or in proximity to the aerosol provision system **10**. For example, one of the sensors **24** can comprise a capacitive sensor, pressure sensor or other form of touch sensor. Such a touch sensor can be located on the body of the aerosol provision system **10**, for example on the aerosol provision device **20**, in order to detect if the user is holding or otherwise touching the aerosol provision system **10** with their hand. In this case, the touch sensor can be located proximate to the second outlet **27**, for example adjacent to the second outlet on the same surface of the housing of the aerosol provision system **10** as the second outlet **27**. This therefore ensures that the one or more puffs of air delivered via the second outlet **27** will be felt by the user, since the user is holding the aerosol provision system **10** proximate to the second outlet **27**. As described above, the aerosol provision system **10** can comprise a mouthpiece **35**, and the one of the sensors **24** can be configured to detect if the user is touching the mouthpiece **35**. For example, one of the sensors **24** a touch sensor located on the mouthpiece **35** and configured to detect if the user is touching the mouthpiece (e.g. with their lips or other part of their mouth). As it will be appreciated, the user touching the mouthpiece **35** can be indicative of the user about to start an inhalation on the aerosol provision system **10**, since the user need to put the aerosol provision system **10** in their mouths before they start to inhale on the first outlet **33**. There may be more than one touch sensor, for example a first touch senor located one the mouthpiece and a second touch sensor located on a different surface of the aerosol provision system **10**, such as on the aerosol provision device **20** and/or proximate to the second outlet **27**.

[0086] One of the sensors **24** can be configured to measure an orientation and/or movement of the aerosol provision system **10**. For example, one of the sensors **24** can comprise a gyroscope, such as the MEMS gyroscope or gyrometer, a 6 or 9 axis accelerometer, a MEMS accelerometer and/or an

Inertial Measurement Unit (IMU). The orientation of the aerosol provision system **10** measured by the accelerometer can indicate whether the aerosol provision system **10** is located on a horizontal flat surface, or whether the aerosol provision system **10** is in a different orientation such as with the article **30** pointing substantially downwards. The accelerometer can also be configured to measure the motion of the aerosol provision system **10**, and therefore detect whether the aerosol provision system **10** is stationary, moving at a constant velocity, or undergoing an acceleration or deceleration. The condition and/or a criteria for providing a notification to the user may relate to the orientation and/or motion of the aerosol provision system **10**, for example if the aerosol provision system **10** is in a particular orientation (such as vertical or aligned with the y-axis in FIGS. **1** to **3**, or horizontal or aligned with the x-axis in FIGS. **1** to **3**) or undergoing an acceleration or a particular motion. The motion may correspond to a particular gesture or known motion of the aerosol provision system **10**, for example a flicking motion or a rotation of the aerosol provision system **10** corresponding to the user moving the aerosol provision system **10** up to their lips to take an inhalation.

[0087] The aerosol provision system **10** can also comprise a communications interface, and the control circuitry **28** configured to communicate with one or more external devices, such as a computer, mobile phone or other electronic device, via the communications interface. The control circuitry **28** can be configured to determine the condition is met based on signal received via the communications interface from an external device. In other words, the external device can send a signal to the aerosol provision system **10** via the communications interface, and in response to receiving the signal, the control circuit **28** determines whether the condition is met. For example, the signal may indicate that the airflow controller is to be enabled or disabled. Equally, the signal may relate to a change of the condition and/or one or more of the criteria for providing a notification to the user. This allows the airflow controller and the notifications to the user to be controlled without directly interacting the aerosol provision system **10**.

[0088] The aerosol provision system **10** can also comprise an input device, such as a button, switch, or touchscreen display. The control circuitry can be configured to determine the condition is met based on an input received via the input device. In other words, the user can provide an input on the input device, and in response to receiving the input, the control circuit **28** determines whether the condition is met. For example, the input may indicate that the airflow controller is to be enabled or disabled. Equally, the input may relate to a change of the condition and/or one or more of the criteria for providing a notification to the user. In some cases, the condition for and/or criteria for providing a notification to the user may be whether an input has or is being provided on the input device. For example, the aerosol provision system **10** may require the user provide the input, such as pressing a button, moving a switch or pressing and holding a button and/or switch, in order for power to be supplied to the aerosol generator **36**. One of the criteria for providing a notification to the user can therefore be that whether or not such an input has been or is currently being provided. This allows the airflow controller to be controlled by and/or in response to the user providing an input on the aerosol provision system **10**.

[0089] FIG. **4** is a flow diagram of a method **400** for operating an aerosol provision system, such as aerosol provision system **10**. The method begins at step **410**, where it is determined that a condition for providing a notification to the user is met. At step **420**, an airflow controller is controlled to deliver one or more puffs of air to a user of an aerosol provision system. The method then ends.

[0090] The method **400** illustrated in FIG. **4** may be stored as instructions on a computer readable storage medium, such that when the instructions are executed by a processor, the method described above is performed. The computer readable storage medium may be non-transitory. In other words, the method **400** illustrated in FIG. **4** may be computer implemented. The method **400** may be performed by the aerosol provision device **20**, such as by the control circuitry **28**.

[0091] As described above, the present disclosure relates to (but it not limited to) an aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an

aerosol generation region, an aerosol generator for generating aerosol from aerosol-generating material in the aerosol generation region, a second air channel extending at least in part from an airflow controller to a second outlet, and control circuitry configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to determining a condition for providing a notification to the user is met.
[0092] Thus, there has been described an aerosol provision system and method.
[0093] The various embodiments described herein are presented only to assist in understanding and teaching the claimed features. These embodiments are provided as a representative sample of embodiments only, and are not exhaustive and/or exclusive. It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects described herein are not to be considered limitations on the scope of the invention as defined by the claims or limitations on equivalents to the claims, and that other embodiments may be utilised and modifications may be made without departing from the scope of the claimed invention. Various embodiments of the invention may suitably comprise, consist of, or consist essentially of, appropriate combinations of the disclosed elements, components, features, parts, steps, means, etc., other than those specifically described herein. In addition, this disclosure may include other inventions not presently claimed, but which may be claimed in future.

Claims

1. An aerosol provision system comprising: a first air channel extending from an air inlet to a first outlet via an aerosol generation region; an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region; a second air channel extending at least in part from an airflow controller to a second outlet; and control circuitry configured to control the airflow controller to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to determining a condition for providing a notification to the user is met.
2. The aerosol provision system of claim 1, wherein the airflow controller is one or more of a pneumatic motor, an actuator for operating a valve and a fan, and wherein the airflow controller comprises the actuator for operating the valve, and wherein the second air channel is in fluid communication with a pressurised container containing pressurised air sealed by the valve, wherein the control circuitry is configured to control the actuator to selectively operate the valve to release pressurised air into the second air channel and to the user via the second outlet.
3. (canceled)
4. The aerosol provision system of claim 1, wherein the second air channel extends from the or another air inlet to a second outlet via the airflow controller.
5. The aerosol provision system of claim 1, further comprising a housing, wherein the second outlet is located on a different surface of the housing to the first outlet.
6. The aerosol provision system of claim 1, wherein the second outlet is configured to direct the puffs of air in a different direction to aerosol delivered via the first outlet.
7. The aerosol provision system of claim 1, wherein a number and/or direction of the puffs of air delivered is based on the condition for providing the notification.
8. The aerosol provision system of claim 1, further comprising one or more sensors, and wherein the control circuitry is configured to determine the condition is met based on signals received from the one or more sensors.
9. The aerosol provision system of claim 8, wherein one of the sensors is configured to measure a state of charge of a power source of the aerosol generating system.
10. The aerosol provision system of claim 8 or claim 9, wherein one of the sensors is configured to measure an operating characteristic of the aerosol generator.
11. The aerosol provision system of claim 8, wherein one of the sensors is configured to measure an amount of airflow in the first air channel.

12. The aerosol provision system of claim 8 **11**, wherein one of the sensors is configured to measure an orientation and/or movement of the aerosol provision system.
13. The aerosol provision system of claim 8, wherein one of the sensors is configured to detect if the user is touching or in proximity to the aerosol provision system.
14. The aerosol provision system of claim 1, wherein the control circuitry is configured to determine the condition is met based on a signal received via a communications interface from an external device.
15. The aerosol provision system of claim 1, further comprising an input device, and wherein control circuitry is configured to determine the condition is met based on an input received via the input device.
16. The aerosol provision system of claim 1, wherein the second outlet comprises a plurality of holes.
17. The aerosol provision system of claim 16, wherein the control circuitry is configured to control the airflow controller to deliver one or more puffs of air via a first subset of the plurality of holes based on the condition for providing the notification.
18. The aerosol provision system of claim 17, wherein the control circuitry is configured to control the airflow controller to deliver one or more puffs of air via a second subset of the plurality of holes after delivering the one or more puffs of air via the first subset of the plurality of holes.
19. The aerosol provision system of claim 18, wherein at least one hole in the first subset of holes is not in the second subset of holes.
20. An article for an aerosol provision system comprising: a first air channel extending from an air inlet to a first outlet via an aerosol generation region; an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region; a second air channel extending from an airflow controller to a second outlet, wherein the airflow controller is configured to deliver one or more puffs of air to a user of the aerosol provision system via the second outlet in response to a condition for providing a notification to the user being met.
21. (canceled)
22. A method for operating an aerosol provision system comprising: controlling an airflow controller to deliver one or more puffs of air to a user of an aerosol provision system in response to determining a condition for providing a notification to the user is met, the aerosol provision system comprising a first air channel extending from an air inlet to a first outlet via an aerosol generation region, an aerosol generator for generating aerosol from an aerosol-generating material in the aerosol generation region, and a second air channel extending at least in part from an airflow controller to a second outlet, wherein the one or more puffs of air are delivered via the second outlet.
23. (canceled)