WHAT IS CLAIMED IS:

1. A method for reporting a beam failure, comprising:

determining (201; 301), by a terminal, that a target secondary serving cell among *n* accessed secondary serving cells has a beam failure, where *n* is a positive integer; ~~and~~

being characterized in:

transmitting (302), by the terminal, an uplink scheduling request or a random access request to the base station, wherein the uplink scheduling request or the random access request is configured to notify the base station of an occurrence of the beam failure of the terminal;

receiving (303), by the terminal, resource configuration information from the base station, wherein the resource configuration information is configured to indicate a physical uplink shared channel PUSCH resource for the terminal to transmit a first medium access control MAC control element CE signaling; and

transmitting (202; 304), by the terminal, ~~a~~ the first ~~medium access control~~ MAC ~~control element~~ CE signaling to ~~a~~ the base station, the first MAC CE signaling comprising beam failure indication information for indicating that the target secondary serving cell has the beam failure.

2. The method as claimed in claim 1, wherein the beam failure indication information is represented by a *m*-bit code word~~*m* bit code words~~, and a *n*-bit code word~~*n* bit code words~~ among the *m*-bit code word~~*m* bit code words~~ and the *n* secondary serving cells have a one-to-one correspondence, *m* is an integer greater than or equal to *n*;

in which an i^{th} bit ~~code word~~ in the *n*-bit code word~~*n* bit code words~~ is configured to indicate whether an i^{th} secondary serving cell among the *n* secondary serving cells has the beam failure, and *i* is a positive integer less than or equal to *n*.

3. The method as claimed in claim 1, wherein the beam failure indication information is represented by a *k*-bit code word~~*k* bit code words~~, $k=\lceil \log_2 n \rceil$, and $\lceil\ \rceil$ represents

rounding up;

in which the *k*-bit code word~~*k* bit code words~~ ~~are~~ is identification information of the target secondary serving cell.

4. The method as claimed in any one of claims 1 to 3, wherein the first MAC CE signaling further comprises target beam indication information, and the target beam indication information is configured to indicate a target beam, selected from *p* candidate beams, for restoring the beam failure, and *p* is an integer greater than 1.

5. The method as claimed in any one of claims 1 to 4, further comprising:

transmitting, by the terminal, a second MAC CE signaling to the base station, wherein the second MAC CE signaling comprises target beam indication information, and the target beam indication information is configured to indicate a target beam, selected from *p* candidate beams, for restoring the beam failure, and *p* is an integer greater than 1.

6. The method as claimed in claim 4 or 5, wherein the target beam indication information is represented by a *q*-bit code word~~*q* bit code words~~, and a *p*-bit code word~~*p* bit code words~~ among the *q*-bit code word~~*q* bit code words~~ and the *p* candidate beams have a one-to-one correspondence, *q* is an integer greater than or equal to *p*;

in which a j^{th} bit ~~code word~~ among the *p*-bit code word~~*p* bit code words~~ is configured to indicate that a j^{th} candidate beam among the *p* candidate beams is selected as the target beam, and *j* is a positive integer less than or equal to *p*.

7. The method as claimed in claim 4 or 5, wherein the target beam indication information is represented by an *r*-bit code word~~*r* bit code words~~, $r=\lceil \log_2 p \rceil$, and $\lceil\ \rceil$ represents rounding up;

in which the *r*-bit code word~~*r* bit code words~~ ~~are~~ is identification information of the target beam.

8. The method as claimed in claim 4 or 5, wherein,

the *p* candidate beams are beams configured by the base station through a radio resource control RRC signaling;

or,

the *p* candidate beams are beams activated by a MAC signaling among multiple beams configured by the base station through a RRC signaling.

~~9. The method as claimed in any one of claims 1 to 5, further comprising:~~

~~transmitting, by the terminal, an uplink scheduling request or a random access request to the base station, wherein the uplink scheduling request or the random access request is configured to notify the base station of an occurrence of the beam failure of the terminal; and~~

~~receiving, by the terminal, resource configuration information from the base station, wherein the resource configuration information is configured to indicate a physical uplink shared channel PUSCH resource for the terminal to transmit the first MAC CE signaling.~~

~~10. The method as claimed in any one of claims 1 to 5, wherein the first MAC CE signaling is transmitted on a periodic physical uplink shared channel PUSCH resource configured by the base station for the terminal.~~

~~11~~9. The method as claimed in any one of claims ~~9 or 10~~1 to 8, wherein:

the PUSCH resource is a resource on the target secondary serving cell; or

the PUSCH resource is a resource on a primary serving cell accessed by the terminal; or

the PUSCH resource is a resource on a primary secondary serving cell among the *n* secondary serving cells; or

the PUSCH resource is a resource on other secondary serving cells in the *n* secondary serving cells except the target secondary serving cell.

~~12. An apparatus for reporting a beam failure, for a terminal, comprising:~~

~~a target cell determining module configured to determine that a target secondary serving cell among *n* accessed secondary serving cells has a beam failure, where *n* is a positive~~

~~integer; and~~

~~a first signaling transmitting module configured to transmit a first medium access control MAC control element CE signaling to a base station, the first MAC CE signaling comprising beam failure indication information for indicating that the target secondary serving cell has the beam failure.~~

~~13. The apparatus as claimed in claim 12, wherein the first MAC CE signaling further comprises target beam indication information, and the target beam indication information is configured to indicate a target beam, selected from *p* candidate beams, for restoring the beam failure, and *p* is an integer greater than 1.~~

~~14. The apparatus as claimed in claim 12, further comprising:~~

~~a second signaling transmitting module configured to transmit a second MAC CE signaling to the base station, wherein the second MAC CE signaling comprises target beam indication information, and the target beam indication information is configured to indicate a target beam, selected from *p* candidate beams, for restoring the beam failure, and *p* is an integer greater than 1.~~

~~15. The apparatus as claimed in any one of claims 12 to 14, further comprising:~~

~~a request transmitting module configured to transmit an uplink scheduling request or a random access request to the base station, wherein the uplink scheduling request or the random access request is configured to notify the base station of an occurrence of the beam failure of the terminal; and~~

~~a configuration information receiving module configured to receive resource configuration information from the base station, wherein the resource configuration information is configured to indicate a physical uplink shared channel PUSCH resource for the terminal to transmit the first MAC CE signaling.~~

~~16~~10. A ~~device for reporting a beam failure, for a~~ terminal, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to perform the method for reporting the beam failure as claimed in any one of claims 1 to 9.~~:~~

~~determine that a target secondary serving cell among *n* accessed secondary serving cells has a beam failure, where *n* is a positive integer; and~~

~~transmit a first medium access control MAC control element CE signaling to a base station, the first MAC CE signaling comprising beam failure indication information for indicating that the target secondary serving cell has the beam failure.~~

~~17~~11. A non-transitory computer-readable storage medium having stored therein computer programs that, when executed by a processor of a terminal, causes the terminal to perform the method for reporting the beam failure as claimed in any one of claims 1 to ~~11~~ 9.~~is performed.~~