WHAT IS CLAIMED IS:

1. A method for beam failure detection, comprising:

determining, by a terminal device, a target reference signal resource for a beam failure detection of a first neighboring cell; and

performing, by the terminal device, the beam failure detection on the first neighboring cell based on the target reference signal resource;

determining, by the terminal device, that a beam failure occurs in the first neighboring cell, in response to a channel quality of the target reference signal resource being below a first threshold; and

reporting, by the terminal device, beam failure information of the first neighboring cell to a serving cell and/or a second neighboring cell through a scheduling request for beam failure recovery in a Physical Uplink Control Channel (PUCCH).

2. The method of claim 1, wherein determining the target reference signal resource for the beam failure detection of the first neighboring cell comprises:

receiving a configuration signaling, wherein the configuration signaling comprises a target information field, the target information field is configured to indicate a time-frequency resource location for receiving the target reference signal resource, and the target reference signal resource comprises one or more reference signal resources.

3. The method of claim 1, wherein the target reference signal resource comprises a default reference signal resource, and the default reference signal resource comprises a reference signal resource corresponding to a Transmission Configuration Indication (TCI) state of a control resource set of the first neighboring cell.

4. The method of claim 3, wherein determining the target reference signal resource for the beam failure detection of the first neighboring cell, comprises:

determining m control resource sets of n control resource sets of the first neighboring cell; and

determining reference signal resources corresponding to TCI states of the m control resource sets as the default RS resource, wherein m and n are both positive integers and m is less than n.

5. The method of claim 1, further comprising:

reporting the beam failure information through a Physical Uplink Shared Channel (PUSCH).

6. The method of claim 1, wherein

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have a same time-frequency domain resource and a same codeword indication mode.

7. The method of claim 1, wherein

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have different time-frequency domain resources;

or,

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have different codeword indication modes.

8. The method of claim 5, wherein reporting the beam failure information through the PUSCH comprises:

reporting a cell number of the first neighboring cell where a beam failure occurs through the PUSCH.

9. The method of claim 8, further comprising:

determining the cell number of the first neighboring cell from joint numbers of the serving cell and neighboring cells;

or,

determining the cell number of the first neighboring cell from independent numbers of neighboring cells.

10. The method of claim 8, further comprising:

detecting candidate reference signal resources corresponding to candidate beams of the first neighboring cell; and

reporting new beam direction indication information through the PUSCH, in response to a reference signal receiving power corresponding to a first candidate reference signal resource reaching a second threshold, wherein the new beam direction indication

information comprises a reference signal resource number corresponding to the first candidate reference signal resource; or, reporting new beam direction indication information through the PUSCH, in response to detecting no candidate reference signal resource with a reference signal receiving power reaching a second threshold, wherein the new beam direction indication information comprises an information field for indicating that there is no new beam direction.

11. The method of claim 1, further comprising:

reporting beam failure information to the first neighboring cell.

12. The method of claim 11, wherein reporting the beam failure information to the first neighboring cell comprises:

reporting the beam failure information to the first neighboring cell through a Physical Random Access Channel (PRACH).

13. A method for beam failure detection, comprising:

sending, by a network device, a configuration signaling to a terminal, wherein the configuration signaling comprises a target information field, and the target information field is configured to indicate a time-frequency resource location for receiving a target reference signal resource, and the target reference signal resource is configured for the terminal to perform beam failure detection on a first neighboring cell;

receiving, by the network device, beam failure information through a Physical Uplink Control Channel (PUCCH);

wherein receiving the beam failure information through the PUCCH comprises:

receiving a scheduling request for beam failure recovery through the PUCCH, wherein the scheduling request comprises the beam failure information.

14. The method of claim 13, further comprising:

receiving beam failure information reported by the terminal, wherein the beam failure information is configured to indicate that a beam failure occurs in the first neighboring cell.

15. The method of claim 14, further comprising:

receiving the beam failure information through a Physical Uplink Shared Channel (PUSCH).

16. The method of claim 13, wherein

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have a same time-frequency domain resource and a same codeword indication mode.

17. The method of claim 13, wherein

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have different time-frequency domain resources;

or,

a scheduling request used to report a beam failure of the first neighboring cell and a scheduling request used to report a beam failure of the serving cell have different codeword indication modes.

18. The method of claim 13, wherein receiving the beam failure information through the PUSCH comprises:

receiving an indication signaling through the PUSCH, wherein the indication signaling comprises a cell number of the first neighboring cell where a beam failure occurs.

19. The method of claim 18, wherein the indication signaling further comprises new beam direction indication information, and

the new beam direction indication information comprises a reference signal resource number of a first candidate reference signal resource, wherein the first candidate reference resource is a candidate signal resource whose reference signal receiving power reaches a second threshold; or, the new beam direction indication information is configured to indicate that there is no new beam direction.

20. A terminal device, comprising:

a processor;

a transceiver connected to the processor; wherein,

the processor is configured to load and execute executable instructions to implement the method for beam failure detection according to any one of claims 1 to 12.

21. A network device, comprising:

a processor;

a transceiver connected to the processor; wherein,

the processor is configured to load and execute executable instructions to implement the method for beam failure detection according to any one of claims 13 to 19.

22. A computer-readable storage medium, wherein the computer-readable storage medium is stored with at least one instruction, and at least one program, code set or instruction set, and the at least one instruction and the at least one program, code set or instruction set are configured to be loaded and executed by a processor to implement the method for beam failure detection according to any one of claims 1 to 19.