CLAIMS

1. An article transport facility, comprising:

a plurality of transport vehicles configured to travel along a predetermined travel path and each including a first transferrer configured to transfer a target article;

transfer stations installed at a plurality of locations adjacent to the travel path;

a second transferrer included in on each of the plurality of transfer stations and configured to transfer the target article to and from each of the first transferrers; and

a transfer operation control unit configured to control a transfer operation when transferring the target article between each of the first transferrers and each of the second transferrers,

wherein the transfer operation is performed while the transport vehicle stops at a position adjacent to the transfer station, and

the transfer operation control unit changes, according to an operating state index indicating a level of an operating state of the plurality of transport vehicles present on the travel path, a setting of the transfer operation such that a required transfer time from start to completion of the transfer operation is increased as the level of the operating state is reduced, while maintaining at least one setting of a traveling speed of the transport vehicles by transmitting an instruction to at least one of the transport vehicle and the transfer station.

2. The article transport facility according to claim 1,

wherein the transfer operation control unit changes the setting of the transfer operation such that a movement speed of the target article in the transfer operation is reduced as the level of the operating state is reduced.

3. The article transport facility according to claim 2,

wherein each of the transport vehicles and each of the transfer stations are configured to, before movement of the target article is started by the transfer

operation, transmit and receive therebetween a speed setting signal indicating a set value of the movement speed,

the transfer operation control unit sets the movement speed indicated by the speed setting signal such that the movement speed is reduced as the level of the operating state is reduced, and

each of the first transferrers and each of the second transferrers move the target article in the transfer operation at a speed according to the set value of the speed setting signal.

4. The article transport facility according to any one of claims 1 to 3,

wherein the transfer operation includes a transmission and reception process in which each of the transport vehicles and each of the transfer stations transmit and receive therebetween signals including a transfer start signal indicating the start of the transfer operation and a transfer completion signal indicating the completion of the transfer operation, and

the transfer operation control unit changes the setting of the transfer operation in such a manner as to increase a period until the transfer completion signal is transmitted after completion of movement of the target article by the transfer operation as the level of the operating state is reduced.

5. The article transport facility according to any one of claims 1 to 4,

wherein the operating state index is an index determined based on an operation rate of the plurality of transport vehicles present on the travel path such that the level of the operating state indicated by the operating state index is reduced as the operation rate is reduced.

6. The article transport facility according to any one of claims 1 to 5,

wherein one or more or all of the plurality of transfer stations are each provided with an article count detector configured to detect the number of target articles held by the transfer station, and

the operating state index is an index determined based on the number of target articles detected by each of the article count detectors such that the level of

the operating state indicated by the operating state index is reduced as said number is reduced.

7. The article transport facility according to any one of claims 1 to 6,

wherein the at least one setting of the traveling speed includes a setting of a maximum speed of the transport vehicles while traveling.