APPENDIX B
70-2 CRANE CLASSIFICATIONS[1]

2.1 Service classes have been established so this specification will enable the Purchaser to specify the most economical crane for the installation. Specific requirements are shown for these components where design is influenced by classifications. All classes of cranes are affected by the operating conditions so for the purpose of these definitions it is assumed that the crane will be operating in normal ambient temperatures (0-100°F) and normal atmospheric conditions (free from excessive dust, moisture and corrosive fumes).

2.2 CLASS A
This class is further divided into two sub-classes due to the nature of the loads to be handled.

2.2.1 Class A1 (Standby Services)
This service class covers cranes used in installations such as; power houses, public utilities, turbine rooms, nuclear reactor buildings, motor rooms, nuclear fuel handling and transformer stations, where precise handling of valuable machinery at slow speeds with long idle periods between lifts is required. Capacity loads may be handled for initial installation of machinery and for infrequent maintenance.

2.2.2 Class A2 (Infrequent Use)
These cranes will be used in installations such as; small maintenance shops, pump rooms, testing laboratories, and similar operations where the loads are relatively light, the speeds are slow, and a low degree of control accuracy is required. The loads may vary anywhere from no load to full capacity with a frequency of a few lifts per day or month.

2.3 CLASS B (Light Service)
This service covers cranes such as used in repair shops, light assembly operations, service buildings, light warehousing etc., where service requirements are light and the speed is slow. Loads may vary from no load to full rated load with an average load of 50% of capacity with 2 to 5 lifts per hour, averaging 15 feet, not over 50% of the lifts at rated capacity.

2.4 CLASS C (Moderate Service)
This service covers cranes such as used in machine shops, papermill machine rooms, etc., where the service requirements are medium.

In this type of service the crane will handle loads which average 50% of the rated capacity with 5 to 10 lifts per hour, averaging 15 feet, not over 50% of the lift at rated capacity.

2.5 CLASS D (Heavy Duty)
This service covers cranes, usually cab operated, such as are used in heavy machine shops, foundries, fabricating plants, steel warehouses, lumber mills etc., and standard duty bucket and magnet operation where heavy duty production is required but with no specific cycle of operation. Loads approaching 50% of the rated capacity will be handled constantly during the working period. High speeds are desirable for this type of service with 10 to 20 lifts per hour averaging 15 feet, not over 65% of the lifts at rated capacity.

2.6 CLASS E (Severe Duty Cycle Service)
This type of service requires a heavy duty crane capable of handling the rated load continuously, at high speed, in repetition throughout a stated period per day, in a predetermined cycle of operation. Applications include magnet, bucket, magnet-bucket combinations of cranes for scrap yards, cement mills, lumber mills, fertilizer plants etc., with 20 or more lifts per hour all at rated capacity. The complete cycle of operation should be specified.

2.7 CLASS F (Steel Mill AISE Specification)
Cranes in this class are covered by the current issue of The Association of Iron and Steel Engineers' Standard, No. 6 for Electric Overhead Traveling Cranes for Steel Mill Service.

[1]CMAA Specification #70: Specifications for Electric Overhead Traveling Cranes, Crane Manufacturer's Association of America Inc., 1970