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DECISION



**THE COMPTROLLER GENERAL
OF THE UNITED STATES**
WASHINGTON, D. C. 20548

FILE: B-198072

DATE: August 8, 1980

MATTER OF: Jackson Jordan, Inc.

DIGEST:

1. Agency interpretation of specification for railway tamping machine that machine be capable of "tamping the entire switch" is reasonable where shown to be consistent with industry interpretation.
2. Definition of performance requirement is not vague and indefinite where performance requirement is one generally understood by industry.

Jackson Jordan, Inc. (Jackson) protests the award of a contract to Canron Corp. for eight railway tamping machines under invitation for bids No. DAAJ09-80-B-5012 issued by the Army Troop Support and Aviation Materiel Readiness Command. The equipment is used to maintain the track and track-beds by compacting the ballast under the tracks to achieve track stability.

Essentially, Jackson argues that Canron's bid should be declared nonresponsive because the tamper identified in the bid fails to "tamp" (that is pack down) "the entire switch" as required by Military Specification MIL-T-52954 (ME), which the IFB incorporated by reference.

Because the Military Specification also requires that the offered tamping machine must be the "latest model" of the offered standard product that was marketed one year prior to the bid opening, Jackson contends that the standard for tamping the entire switch is an evolving standard which must change with state-of-the-art improvements introduced by each latest model. Jackson asserts that its latest model, the Jackson 6500 marketed just over one year prior to bid opening, introduces such an advancement in the state-of-the-art that Canron's tamper should now be considered incapable

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of tamping the entire switch. In the alternative, Jackson argues that the entire switch requirement is so vague and indefinite that it fails to provide a sufficient ground for competition.

A switch consists of two sections of track and accompanying apparatus used to transfer rolling stock from one track to another at a point where the tracks converge. The tamping operation itself consists of inserting multiple vibrating bars (referred to as tamping blades) into the ballast (stones) on opposite sides of the tie. Due to the combined action of mechanically forcing these blades in the direction toward the tie and the vibration transmitted by the blade into the ballast surrounding the blade, the stones slide or rotate in relation to each other until a compacted mosaic is formed. Since the tamping tool cannot be moved into the area directly under the rail, a design objective for tampers is to have the blades tamp as closely to the rail as possible. The action of the tamping blades working on both sides of the rail and on both sides of the tie is desired to concentrate the tamping effort in the area of the railtie intersection (referred to in the railroad industry as the "rail seat" or "rail support area") which bears the greatest load. The center of the track generally is not tamped.

Both the Army and the protester have had difficulty reaching an objective definition of "tamping the entire switch," and both agree that no tamping machine can literally contact the entire surface of a switch because as the rails converge the area between them becomes too small for the tamping heads. The Army appears to define the requirement with reference to the railroad industry's practice, whereas Jackson relies on its machines' ability in tamping a switch to more closely approach recommended practices for single track tamping generally.

The Army reports that industry acceptance of Cannon's tamper indicates it is capable of tamping

the "entire switch" as understood by the industry, and therefore Canron's tamper meets the the Military Specification since the Army's actual requirements are identical to the industry's.

The protester refers to the American Railway Engineering Association (AREA) "Manual of Recommended Practice," incorporated into the Military Specification by reference, as demonstrating the general objectives of a tamping machine. The AREA Manual provides that a tamping machine should 1) tamp the rail seat or rail support area as opposed to the center of the track; 2) tamp both ends of the tie simultaneously; and 3) tamp both inside and outside the rail (on the same end of the tie) at the same time. While admitting that no tamping machine can accomplish these objectives along the entire length of the switch, Jackson alleges that the Canron's tamper cannot accomplish these objectives over a major portion of the switch. Jackson further contends that Canron's tamper tamps certain ties at their center while Jackson's tamper tamps only the rail seat.

The Army responds that reliance upon the AREA Manual to reach a standard for tamping the entire switch is invalid because the cited objectives make no distinction between tamping a single track and a switch (with its converging and intersecting rails). Pointing out that the AREA Manual was published in 1953, long before these sophisticated machines were marketed, the Army cautions against making a direct word-for-word comparison of the Manual's recommended practices against modern procedures. With regard to tamping both ends of a tie simultaneously, the Army reports that if track is cross-leveled (that is aligned within the same horizontal plane) then it is immaterial whether or not the tamper tamps both ends simultaneously. In this regard the Army determined that Canron's descriptive literature shows that the Canron equipment meets the Military Specification, including a

requirement that tampers shall automatically cross-level track. Canron's descriptive literature guarantees track accuracy of ± 1 mm (1/32 inch), which is the same accuracy Jackson attributes to its 6500. Although the Army admits that tamping at the center of a tie could create instability on a single track, the Army reports that no such problem exists on a switch because the ties are longer and the load is spread over a wider area and more rails. Therefore, tamping the middle of switch ties does not pose as great a danger that the ends of ties will sag and cause the ties to pivot.

Jackson does not dispute these technical judgments, except to say that "precise" cross-level cannot be maintained unless a tie is tamped simultaneously at both ends, and that the Army is in no position to attack the applicability of the procedure in the AREA Manual because the Army itself required compliance with these procedures in the Military Specification.

We believe Jackson's interpretation of the Military Specification is unreasonable and that the Army reasonably interprets the entire switch requirement by reference to the industry's practice. We ^{and} note both Jackson's and Canron's literature describe their machines as being able to tamp "100 percent of any switches" and "100 percent of the switch", respectively. Furthermore, the literature for Jackson's prior model, which is still commercially available but lacks the alleged state-of-the-art improvements of the 6500, also claims that the machine "tamps 100 percent of switches." This claim does not ignore the AREA Manual's recommended procedures since the cited procedures do not differentiate between straight track and switches, and the Manual could not possibly have intended to impose standards for switch tamping which were beyond the state-of-the-art in 1953 when the Manual was published. Thus, prior to the introduction of its most current model, Jackson's definition of tamping the entire switch would appear to have been consistent with the Army's in this case.

Jackson's interpretation is unreasonable because it would result in the qualification of only one firm to participate in a procurement any time that firm arguably made an advancement or improvement in the technology of railway switch tamping. However, such a restrictive specification would only be justified if the agency required the improvement to meet its minimum needs. See Metal Art, Inc., B-194181, July 11, 1979, 79-2 CPD 25.

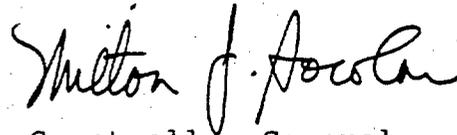
In light of the apparent understanding of the phrase "tamping 100 percent of the switch," as evidenced by Canron's and the protester's own use of the phrase, we also believe the entire switch standard is sufficiently specific and accurate to provide bidders with a reasonable common basis on which to prepare their bids and have them evaluated. See Fred Anderson, B-196025, February 11, 1980, 80-1 CPD 120. We have held that it is not always feasible for an agency to draft exact specifications, and that in such situations the agency may adopt reasonable alternatives. See Cosmos Engineers, Inc., B-187457, March 31, 1977, 77-1 CPD 222. The protester itself has criticized the Army's attempts to objectively define the entire switch performance requirement as being imprecise. For instance, where the Army explained that the requirement implies "the machine's ability to reach enough of the surface area to achieve complete compaction of ballast under the switch," Jackson complained that there currently is no practical method of determining the degree of railroad ballast compaction. Apparently, the industry standard of tamping "100 percent of," or the "entire" switch affords the best method presently available to describe the desired performance characteristics of a switch tamper. Since the development of objective quantitative performance specifications would have required time consuming and costly research, the Army properly adopted a reasonable alternative. See Cosmos Engineers, supra. At any rate, the protester, who

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bears the burden of affirmatively proving its case, Alan Scott Industries, B-197036, March 21, 1980, 80-1 CPD 212, has in our view failed to show that the entire switch requirement is unreasonable.

The protest is ^{wfs} denied.



For the Comptroller General
of the United States