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buy quiet buy quiet buy quiet buy quiet

report

a supplement to
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Service Bulletin

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National Institute of Governmental Purchasing 1735 Jefferson Davis Hwy. Arlington VA 22202 (703) 920-4020

Salt Lake City Purchases Quiet, Efficient Compressors

By using a bid evaluation formula developed through the Buy Quiet Program, Salt Lake City, Utah, has obtained a projected savings of nearly \$30,000 over the 5 year life cycle of three 160 CFM, 2 wheel, portable air compressors.

The simple formula used by Salt Lake City was developed at a Buy Quiet Government-Industry Conference conducted in Newark, New Jersey last June. It is:

$$EBP = P - VNR + CE$$

Where:

EBP = the Evaluated Bid Price
P = the Actual Bid (i.e., Purchase Price)
VNR = the Value of Noise Reduction
CE = the (projected) Cost of Energy (i.e., fuel) required to operate the air compressor during its established life cycle

The City calculated VNR using the recommended formula:

$$VNR = Y (P_{AV}) (N_N - N)$$

Where:

Y = the percentage weight by which the purchasing agency would "reward" (or "compensate") a bidder for each decibel that his unit is quieter than the loudest unit offered responsively
 P_{AV} = the average of the Actual Bid Prices for all units offered responsively
 N_N = the Noise level of the Noisiest model offered
N = the Noise level of the unit for which EBP is being calculated

The purchasing agency stated in the Invitation for Bids that Y would be equal to 2% (calculated as .02). As can be seen in the tabulations below, P_{AV} equaled \$10,579.75, and N_N equaled 76 dBA. N for Bidder A was 76 dBA; for Bidder B, 76 dBA; for Bidder C, 74.5 dBA; and for Bidder D, 76 dBA. The City had specified that the maximum acceptable noise level would be 76 dBA measured in accordance with the U.S. Environmental Protection Agency Air Compressor Noise Test Procedure.

The Purchasing Agency calculated CE using the formula:

$$CE = FC \times AOH \times PLY \times CEG$$

Where:

FC = the Fuel Consumption rate of the unit offered, expressed in "gallons per hour" (provided by the bidder)

AOH = the projected Annual Operating Hours for the unit (provided by the City)

PLY = the Projected Life of the unit, expressed in Years (provided by the City)

CEG = the Cost of Energy (i.e., fuel, provided by the City)

As can be seen in the tabulations below, FC for Bidder A was 2.2145; for Bidder B, 2.381375; for Bidder C, 2.8988; and for Bidder D, 2.6903. The specifications required bidders to submit fuel consumption rates for the models they offered and stipulated that those rates were to be determined in accordance with the Compressed Air and Gas Institute Recommended Fuel Consumption Test Procedure. CEG equaled \$1.20 per gallon.

"Raw" Bid Tabulations

Bidder	Mfr.	N (dBA)	FC (gph)	P
A	Atlas-Copco	76.0	2,214500	\$10,598
B	Ingersoll-Rand	76.0	2,381375	\$10,627
C	LeRoi-Dresser	74.5	2,898800	\$10,189
D	Sullair	76.0	2,690300	\$10,905

Once the calculations for VNR and P_{AV} were performed, the City then calculated an Evaluated Bid Price (EBP) for each bidder. VNRs, CEs, and EBPs obtained for the four bidders are shown in the table below.

"Revised" Bid Tabulations

Bidder	P	(-) VNR	(+) CE	EBP
A	\$10,598	\$ 0.00	\$34,546.20	\$45,144.20
B	\$10,627	\$ 0.00	\$37,149.48	\$47,776.48
C	\$10,189	\$317.39	\$45,221.28	\$55,092.89
D	\$10,905	\$ 0.00	\$41,968.68	\$52,873.87

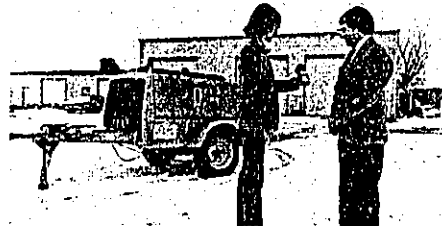
Had the contract been awarded to the lowest "actual" bidder, Bidder C would have been the successful bidder at a price of \$10,189 (an EBP of \$55,092.89). The contract was awarded to Bidder A, who had a P of \$10,598 (\$409 per unit higher than Bidder C) and an EBP of \$45,144.20 (\$9,948.69 per unit lower than bidder C).

The total contract price was \$31,794 (3x \$10,598). Projected savings on energy alone per unit amounted to \$10,675.08 (\$45,221.28 - \$34,546.20) and 8,895.9 gallons of diesel fuel (2.8988 x 2600 x 5 minus 2.2145 x 2600 x 5, which is equal to 37,684.4 - 28,788.5).

Terry Anderson was the Buyer responsible for this purchase. Clair E. Moffit is the Purchasing Agent for Salt Lake City.

Additional information on this purchase is available from the Buy Quiet Program

Director at NIGP of from Clair Moffit, Purchasing Agent, Salt Lake City Corporation, 320 Circuit Courts Building, 450 S. 200 East, Salt Lake City, UT 84111, telephone (801) 535-7661.



Pictured above are Patti Fricks, Salt Lake City/County Health Dept., and Terry Anderson, Buyer, Salt Lake City Purchasing Dept. verifying sound levels on one of two quiet/efficient air compressors recently purchased.

ATTACHMENT II

Standards and Regulations Division
Required Close Out Activities

(1) NPRM TO AA (IMC)

Complete preamble, action memo, regulation and supporting regulatory analysis. Also assisting DOT in resolving several serious existing technical issues associated with their present compliance regulation.

(2) NPR to Federal Register

Proof Federal Register galleys and correct - limited effort from Standards and Regulation Division personnel.

(2a) NPRM to Federal Register (IMC)

In addition to developing a comprehensive regulatory analysis and background document, we will be assisting DOT in developing the necessary revision to their attendant compliance regulations.

(3) Public Comment period

Receive, log and categorize public comments. Begin to develop Agency response to comments and issues.

(4) Docket Analysis and Submittal of Notice of Rulemaking to AA

Analyze the docket comments, prepare responses and modify the final regulatory package as appropriate. Prepare a separate docket analysis report, write or prepare final preamble and action memo, and upgrade regulatory analysis.

(5) Administrative Actions

Respond to issues and questions that surface during final clearance process. Prepare legal index of documentation supporting Agency decision.

Proof Federal Register galleys prior to publication. (Needs revising after public comment).

(6) Final Comments on Regulations and Project Close Out

Section 16 of the NCA permits 90 days for additional comments, questions and/or submission of petitions for Judicial Review of the final regulation. The Agency must respond to any such actions. Additionally, the project records including boxing, indexing and shipment to the Federal Records Center must be completed, as well as the preparation of the project executive summary and attendant program reference materials. There are one hundred and eleven boxes of records related to the ongoing actions that must be retained by OANR which require approximately 120 ft³ of storage space.

(7) Miscellaneous

Need for general housekeeping such as routine responses to Congressionals, State and local questions concerning existing regulations, etc. This is likely to be a continuing requirement as long as the Noise Control Act remains in effect.

7/19/82

Number of Boxes

earing Protectors	8	Keep
interstate Motor Carrier	5	Keep
ailroads	33	send
.NEP	1	send
Fucks	24	Keep
otorcycles	37	send
ement Breakers/Rock Drills	9	Keep
table Air Compressors	1	send
res	10	send
wnmowers	7	keep
mswc	20	keep
TRU	5	keep
ul & Crawler	16	keep
uses	17	keep
tional Standards	1	send
beling	19	send

Date of Assignment	Assignment	Staff	Due Date	Actual Date	Status
4/8	Projected Provide Reference for ① Status of Reg. Activities	Feith/Nozick	4/16	4/13	
4/7	② Procedures for preparing records & resource material to be utilized by the Agency after 7/30/84.	NOZICK	4/23	4/19	
7/19	⑤ Milestone plan for remaining closed activities	Feith/Nozick	7/22	7/22	
6/21	④ Bibliography Abstract provided to complete file.	NOZICK	6/22	6/22	
5/7	③ Rationale memo for AX on RR & matrnyale actions	Feith	5/12	5/11	
7/31	⑥ Egg packet ^{INC}	Feith	7/28	7/26	
	⑦ Copies completed for Archives	Feith/Nozick	8/19	last copies 8/19	