

ANNEXURE A

SPECIFICATION FOR THE PROCUREMENT OF THIRTY (30) MARINE VERY HIGH FREQUENCY (VHF) HANDHELD RADIOS, THIRTY (30) SPARE BATTERIES, THIRTY (30) BATTERY CHARGERS, THIRTY REMOTE MIC AND SPEAKER FOR THE HARBOUR MASTER (HM) DEPARTMENT IN THE PORT OF RICHARDS BAY.

1. THIRTY (30) VHF HANDHELD RADIOS

ITEM DESCRIPTION HANDHELD REQUIREMENTS

- 1.1 VHF, (136 – 174 MHz band) IP56, Handheld Conventional radio, with a minimum of 99 conventional 12.5 kHz channels. (Can specify alternative number of channels).
Including Antenna, Remote Speaker Microphone, Battery and Charger
Radio must be ICASA approved.
Must comply with attached specification.
- 1.2 The Handheld Conventional Radio should be Intrinsically Safe certified. Certificate of level should be supplied. SAFE RATED ATEX LEVEL (II-2-G-Ex-ib-IIC-T4-Gb)
- 1.3 Quarter wave flexible whip antenna for item 1.1, to cover the 136 to 174 MHz band.
- 1.4 High-capacity Battery to fit item 1.1, capable of sustaining a 12-hour shift. (Tx, Rx, Standby).
- 1.5 Single bay rapid rate Charger for item 1.1 Provision must be made for a standard 3 pin 15amp mains plug.
- 1.6 Remote speaker microphone with PTT button
- 1.7 Robust Belt clip for radio, fixed to the battery all battery must be fitted.
- 1.8 Programming software, Leads, Adaptors and technical manuals on CD.
- 1.9 MANDATORY RETURNABLE DOCUMENTS:
Declaration Certificate for Production and Content and Designated Sector. (Two-Way Radios and Associated Equipment).

2. THIRTY (30) SPARE BATTERIES

- 2.1 *Incompliance with SANS / SABS "Intrinsically Safe Electrical Apparatus".*

HAND HELD VHF MARINE RADIO SPECIFICATIONS

Frequency range	Tx	156.000–162.000 MHz
	Rx	156.000–164.000MHz
	CH70	156.525MHz
Power supply requirement. Battery Li-Ion		7.2V DC nominal 1500 mAh
Dimensions (W×H×D) (Projections not included)		60×146×40 mm (maximum)
Weight (approx.)		320 g max incl battery
Current drain	Tx 5W output	< 1.6 A
	Rx Max. audio	< 500 mA
Sensitivity	Main	-6dBμ emf typ. (20dB SINAD)
	DSC	-5dBμ emf typ. (1% BER)
Intermodulation	Main	> 70dB
	DSC	> 73dBμ emf (1% BER)
Operating temp range		-15-+55 deg C
Antenna impedance		50 ohm
TRANSMITTER		
OUTPUT POWER		5W-1W
MAX FREQ DEVIATION		5khz
FREQUENCY STABILITY		< 1.5khz
SPURIOUS EMISSIONS		< 0.25micro W
RECEIVER		
SENSITIVITY	MAIN	-6dbu
	DSC	-5dbu
SQUELCH SENSITIVITY	MAIN	-6dbu
ADJ CHANNEL SELECTIVITY	MAIN	> 70db
	DSC	> 73 dbu (1%BER)
SPURIOUS RESPONSE	MAIN	> 70db
	DSC	> 73 dbu (1%BER)
INTERMODULATION	MAIN	> 68db
	DSC	> 68 dbu (1%BER)
HUM AND NOISE		> 40db
AUDIO OUTPUT POWER @ 10% DIST INTO 4 OHM		> 0.9 watt
Applicable IP Rating		
Ingress Protection Standards		
Water	IPX7 (Waterproof protection)	