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Information removed for national
security and/or personal sensitivities

~~CONFIDENTIAL COMINT CHANNELS~~

INTERFERENCE AT YOUR 100756.

YOUR QUESTION IS DIFFICULT TO ANSWER IN SPECIFIC TERMS DUE TO THE PRESENCE OF MANY UNKNOWN FACTORS. NO RELEVANT ACCURATE INFORMATION IS HELD AT DSD. HOWEVER IT IS POSSIBLE TO GENERALISE AND INDICATE EXTENT TO WHICH YOUR SITE COULD BE COMPROMISED UNDER WORST CASE CONDITIONS.

2. THE 3 HP MOTORS YOU MENTION ARE LIKELY TO BE THREE PHASE SQUIRREL CAGE INDUCTION MOTORS WHICH ARE ESSENTIALLY NOISE FREE, IF HOWEVER THEY ARE OF THE WOUND ROTOR TYPE AND/OR EMPLOY STARTING OR SPEED CONTROL EQUIPMENT THEY WILL GENERATE SIGNIFICANTLY MORE RADIO NOISE AND COULD BE AUDIBLE IN YOUR ANTENNAE FARM.

3. THE WELDING EQUIPMENT CONSTITUTES A SERIOUS THREAT TO YOUR OPERATIONS. ALTHOUGH GARBLED IN TRANSIT IT IS UNDERSTOOD YOUR 100756 DESCRIBES EQUIPMENT AS 250 AMP TRANSFORMER TYPE AC ARC WELDERS. THIS TYPE OF EQUIPMENT STRIKES AT AN ELECTRODE VOLTAGE OF FROM 80 TO 100 VOLTS RMS. THE ARC IS THEN MAINTAINED AT 25 TO 45 VOLTS. THE POWER DISSIPATED IN THE ARC IS THEREFORE OF THE ORDER OF 5 KW AND MAY THUS PRODUCE CONTINUOUS HIGH LEVEL RADIO NOISE OVER A WIDE SPECTRUM. THIS PROBLEM HAS OCCURRED AT [REDACTED] WHERE A SIMILAR LIGHT ENGINEERING PLANT EMPLOYING SMALL ARC WELDERS HAS BEEN AUDIBLE (WITH DEFINITE EFFECT ON OPERATIONS) AT RANGERS UP TO AND EXCEEDING ONE AND A HALF MILES.

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