

Question #7

a. Multispectral Solutions, Inc. (MSSI) seeks an experimental license to further evaluate previously approved and FCC type accepted Ultra-Wideband equipment beyond the present certification under FCC Part 15 rules.

The FCC-certified equipment is specified as FCC ID QCJPAL6511X1. This wideband tracking equipment, both original qualified hardware, and modified hardware will be supplied by MSSI. MSSI will also participate in the experimental evaluation of their equipment at BP's Cherry Point refinery located in Blaine, WA.

One exception to the present certification is requested under this experimental license application and discussed in greater detail below.

Permission is requested to operate the equipment outdoors with increased transmit power. Emitted power as defined under Part rules certification to be increased to a maximum power level of one (1) watt. For reference, Sarnoff Corporation received an experimental license to operate a nearly identical MSSI RFID tag on September 21, 2004 under File Number 0111-EX-PL-2004.

The experimental hardware to be used by BP is a higher powered version of an FCC certified RF Tag (QCJPAL6511X1). The Grant of Equipment Authorization dated May 2, 2005 is attached as an Exhibit for reference. The need for higher power is to extend the range of MSSI's real-time location system in support of personnel safety and rescue in refineries.

b. BP is currently assessing MSSI's real time tracking system for compliance with OSHA and WISHA standards. Full compliance must be demonstrated by December 2005.

Occupational Safety and Health Standards, Process Safety Management of Highly Hazardous Chemicals [29 CFR 1910.119 (f)(4)]

Purpose. This section contains requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals. These releases may result in toxic, fire or explosion hazards.

The employer shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping; and control over entrance into a facility by maintenance, contractor, laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees.

WAC 296-67-021 Operating procedures.

(1) The employer shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements.

(5) The employer shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping; and control over entrance into a facility by maintenance, contractor,

laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees.

MSSI's Sapphire real time tracking system has demonstrated the capability to locate personnel and assets in severe multi-path environments such as ships, factories, and office spaces. Other technologies lack the precision (one foot resolution), battery life (4 years), and low infrastructure complexity needed to provide a practical solution to enhance personnel safety. Higher power tags are essential to locating personnel in and around the complex metal structure of a refinery. This is particularly true following a disaster where personnel may be buried under several feet of metal debris. In addition, higher power tags will ensure 100% tag reads for identifying and counting personnel following an evacuation event.