

EXHIBIT NO. 1

Reference: Item No. 4 F

The pulse duration is adjustable from 400 nanoseconds to 12 microseconds. Bi-phase (180°) modulation may be employed in minimum intervals of 400 nanoseconds.

The pulse frequency is also adjusted to the mode of operation, but cannot exceed 50 KHz.

EXHIBIT NO. 2

Reference: Item No. 4 G

Simple calculations using the minimum 400 nanosecond pulse/code cell duration yields:

Signal Level Below Peak	Bandwidth
-3 dB	2.2 MHz
-10 dB	3.7 MHz
-20 dB	12.7 MHz

These values have been confirmed by measurement.

EXHIBIT NO. 3

Reference: Item No. 5 b

The unit will be located behind the Science Museum of Virginia, approximately 900 feet north of Broad Street and 600 feet west of DMV Drive. The unit will be adjacent to an existing air quality monitoring shelter.

EXHIBIT NO. 4

Reference: Item No. 6

The antenna system will consist of one steerable micro-patch phased array planar antenna with side lobe reduction fence. The antenna will be point vertically, with electrically switched delays introduced to point it 21° off vertical, in planes that are 90° from each other. The antenna will have a beam width of approximately 9° by 9° , and approximately 26 dB of gain.

Normal operation will consist of sequential transmissions in each of three (two oblique, one vertical) or five (four oblique, one vertical) directions.

EXHIBIT NO. 5

Reference: Item No. 7

The system that would be operated under the requested license will collect wind and virtual temperature profiles. This equipment is part of a photochemical assessment monitoring station which the Virginia Department of Environmental Quality must operate pursuant to regulations contained in Title 40, Code of Federal Regulations, Part 58. The Commonwealth of Virginia and the U. S. Environmental Protection Agency (EPA) have entered into an assistance agreement (Assistance ID No. A-003071-00, Project Officer is Mr. Russ Bowen, (215)814-2057) in which EPA has provided Federal funds for the establishment and operation of this monitoring site. The data from this system will be used for the research and development of predictive air quality models and the design of control strategies for the control and abatement of ground level ozone in the Northeastern portion of the United States. The data also will be used in conjunction with other ongoing air pollution control projects within Virginia.