SDC 2000 - Feed Prohibitive Interlocks (FPIs) for VX Campaign
(Note 1)

System ID and FPI Items Number	Process Data Description	Range	Process Control Parameter
SDC-FPI-01	Detonation Chamber Static Pressure	MAX	Not Equal to or Greater Than 25 psi for 10 seconds (Note 2)
SDC-FPI-02	Detonation Chamber Temperature Indication (Bottom)	MIN	Not Equal to or Less Than 1,000°F (538°C) (Army / Permit Required MIN Temperature)
SDC-FPI-03	Detonation Chamber Temperature Indication (Conical)	MIN	Not Equal to or Less Than 1,000°F (538°C) (Army / Permit Required MIN Temperature)
SDC-FPI-04	Thermal Oxidizer (THO) Temperature	MIN	Not Equal to or Less Than 1,800°F (982°C) (Permit Required Temperature)
SDC-FPI-05	THO Pressure	MAX	Not Equal to or Greater Than 0.0 psi for 10 seconds
SDC-FPI-06	Quench Tower Discharge Temperature	MAX	Not Equal to or Greater Than 194°F (93°C)
SDC-FPI-07	Bleed Water Tank Level	MAX	Not Equal to or Greater Than 95% (Note 3)
SDC-FPI-08	Mist Water Tank Level	MAX	Not Equal to or Greater Than 95% (Note 3)
SDC-FPI-09	Waste Water Tank Level (Two Tanks)	MAX	Not Equal to or Greater Than 95% in Both Tanks OR If 1 Tank is Out of Commission Not Equal to or Greater Than 95% in the available Tank (Note 3)
SDC-FPI-10	Off-Gas Treatment System (OTS) Stack	MAX	Not Equal to or Greater Than 0.0003 mg/m3 1 SEL (30 VSL) (Note 4)
SDC-FPI-11	HVAC Carbon Filter Unit Exhaust	MAX	Not Equal to or Greater Than 0.000005 mg/m3 (0.5 VSL) (Note 5)

Footnotes:

(1) These interlocks are known as Feed Prohibitive Interlocks (FPIs). Operational process control indicator parameter(s) will function as FPIs which prohibit the transfer from Loading Chamber 1 (LC1) into Loading Chamber 2 (LC2) until all conditions are met or are within range. The transfer from LC1 would be prohibited if LC1 gate is closed. NOTE: Should an FPI occur after the transfer into LC2 has begun or has occurred, the feed box cannot remain in LC2 and processing must continue for safety reasons (the feed box must be dropped into the Detonation Chamber (DC).

(2) The 10 second response time associated with the Detonation Chamber (DC) static pressure and Thermal Oxidizer (THO) pressure differential pressure allows the system time to respond to the transient and return to a steady state after pressure increases occur during destruction events without creating an expected alarm.

(3) Tank liquid levels adjusted as necessary to ensure equipment function and set to prevent an overflow.

(4) Alarm level is set at .33 SEL (10 VSL)

(5) Alarm level set at 0.000005 mg/m3.