Fan System Optimization Checklist [Copy 1]

For fans over 50 hp that operate more than 4000 hours per year

Instructions: Use this checklist to qualitatively select the top optimization projects for FSAT analysis. Make a copy of this list for each of your major systems, then go through the list and add up the points for the conditions that apply. **If there are any control, production & maintenance, or system effect indicators, then add points for size and run hours as follows:** *If the system operates more than 6000 hours add a point. **If the system is over 100 hp add a point per 100 hp (200 hp = 2 points, 300 hp = 3 pts, etc). Also add a point or points if production or maintenance problems are severe. Two or more points can indicate a good optimization opportunity. Four or more points probably indicate a very good opportunity. ***Note***: Fans with adjustable speed drives usually are not good candidates for optimization.

Fan System _____

Are there problems with the system?_____

Points** 1 ___ Motor _____ hp

Points* 1 ___ Operating hours _____

Tally the points _____

Control		Production & Maintenance		System Effect	
Points		Points		Points	
2 ___	Motor overloads unless damper restricts flow	2 ___	Too much flow or pressure for production	2 ___	90° turn *right at* fan outlet or inlet
2 ___	Spill or bypass	2 ___	Unstable or hard to control system	1 ___	90° turn *near* fan outlet or inlet
2 ___	Discharge damper	2 ___	Unreliable system breaks down regularly	2 ___	Dirt leg at bottom of inlet duct
1 ___	Inlet damper	1 ___	Not enough flow or pressure for production	1 ___	No outlet duct
1 ___	Variable inlet vane	1 ___	System is excessively noisy	1 ___	Restricted or sharp inlet
1 ___	System damper	1 ___	Buildup on fan blades		
1 ___	Damper is mostly closed	1 ___	Need to weld ductwork cracks regularly		
		1 ___	Radial fan handling clean air		

Facility/Contact/ phone/fax: _____