

**"From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture."  
Innovative Ag Services  
August 17, 2016**

Innovative Ag Services (IAS) currently invests 35,530 minutes, 593 hours per year training our 374 full time and part time employees to safely handle anhydrous ammonia. This time totals \$17,765 and computes to \$.64/ton of anhydrous ammonia sold. We have a good track record of handling anhydrous ammonia. When employees, truckers and customers follow our current safety programs, these policies and procedures have proven effective.

IAS, along with its safety consulting firm and their engineering partner selected an IAS location to work through the process of determining the cost of implementing PSM. Engineering was estimated by a PSM qualified engineer. These cost estimates are outlined in Document #1. The upfront estimates total \$26,856 per location and include the cost of IAS personnel. Document #3 and #4 outline the detail of each segment of PSM compliance summarized on Document #1.

Document #2 is our estimate of the ongoing annual per location costs to perform the PSM requirements. This annual cost computes to \$5,275 per location. We noted both on Document #1 and Document #2 that these estimates do not include the recent proposed EPA rule changes.

Document #3 summarizes the upfront cost and annual cost of implementing PSM. Additionally I have computed the cost on a per ton basis per current IAS location. Please note that the total estimated costs for IAS are \$725,112 or \$28,856 per location. I have amortized the up front costs over 5 years and added the ongoing annual costs to compute a total annual cost of \$10,646 per location. This computes to \$10.31/anhydrous ammonia ton on all IAS tons sold this year. I do not believe it is economically prudent to invest the capital resources to make every IAS anhydrous ammonia location PSM compliant. If we would elect to not invest more than \$10/ton annually in PSM compliance costs, we would close 59% (16) of our current anhydrous ammonia facilities.

In summary:

Today we are spending \$.64/ton to invest in our current anhydrous ammonia training. PSM will require IAS to spend an additional \$10.31/ton, \$287,641/year. We do not believe the implementation of PSM will improve our safety performance.

Our current operations with anhydrous ammonia comprise filling our tanks during a 2 week time frame prior to the fall (late November) and spring (April) application period. During the fall and spring seasons, we operate these anhydrous ammonia facilities for 2 to 3 weeks. The facilities set idle the balance of the year. In summary, we operate these facilities 2.5 months per year, 20% of the time. They set idle for 80% of the year.

We will be forced to close 16 of our 27 plants (59%), affecting 389 (35%) of our customers. This will affect our other business with these same customers. This will put more anhydrous ammonia loaded trips and miles on the roads, thereby decreasing current road safety. If these anhydrous ammonia tons are replaced with urea ammonium nitrate solution, we will add 1,552 tandem truck loads to the highways in the already busy 3 week spring planting season.

We strive to create a safe work environment for our employees through extensive ongoing training. Ineffective regulations, like PSM, will not create a safer work environment. IAS does business in a very competitive environment where margins are very thin. We have significant concerns with those competitors in the anhydrous ammonia business who do not have to or will choose not to make these significant PSM investments necessary to comply. The cost of compliance with PSM will create an unwarranted competitive disadvantage to our farmer cooperative.

Thank you very much.

Rick Vaughan, CEO - Innovative Ag Services

**IAS PSM LABOR AND COST WORKSHEET - UPFRONT SUMMARY:**

Activity	Hours to Complete	GROUP RESPONSIBLE			ESTIMATED TOTAL COSTS	
		Consultant	Engineer	IAS	Consultant/Engineer	IAS
Introduction	0.25	X			\$31	\$0
Current CDX Submittal	19.40	X		X	\$2,425	\$0
Management Flow Chart	12.00	X		X	\$875	\$600
Off-site Consequence Analysis (WCS & ACS)	2.60	X			\$325	\$0
Five Year Accident History	0.34	X			\$42	\$0
Process Safety Information	26.09	X	X	X	\$3,340	\$0
Process Hazard Analysis	32.00	X	X	X	\$4,000	\$2,400
IDALS Anhydrous Ammonia Facility Checklist	0.34	X		X	\$42	\$0
Operating Procedures	1.00	X	X	X	\$125	\$0
Training	14.20	X	X	X	\$1,775	\$900
Mechanical Integrity (TOS)	25.0	X	X	X	\$3,125	\$300
Compliance Audit	14.00	X		X	\$1,750	\$0
Incident Investigation	0.34	X		X	\$42	\$0
Management of Change	9.00				\$1,125	\$0
Pre-start Up Safety Review	0.34	X	X	X	\$42	\$0
Employee Participation Plan	7.00	X		X	\$875	\$0
Hot Works	0.34	X		X	\$42	\$0
Contractors	7.00	X		X	\$875	\$0
Emergency Response Plan	5.40	X	X	X	\$675	\$0
Site Pictures	1.00	X			\$125	\$0
Supplies and misc						\$1,000
<b>Totals</b>	<b>177.62</b>				<b>\$21,656</b>	<b>\$5,200</b>

Total PSM estimated cost per location - Upfront	\$26,856
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Does not include recent EPA proposed rule changes

Costs based on current IAS location:

NH3 Total capacity (gal)	92,052
NH3 Storage Tank Size (gal)	26,000
	12,000
# of nurse tanks	55

**IAS PSM LABOR AND COST WORKSHEET - UPFRONT DETAIL:**

ACTIVITY
Introduction
Current CDX Submittal
<b>Management Flow Chart</b> Management System (Person Responsible or Title) Implementation of PSM Submittal of the RMP Safety Information Maintenance Operating Procedures Training Process Hazard Analysis Compliance Audit Accident Investigation Emergency Plan 5-year Accident Report Off-site Consequence Analysis
<b>Off-site Consequence Analysis (WCS &amp; ACS)</b> Analysis Map Population Computations Facility Satellite Map
<b>Five Year Accident History</b> Spill Reports
<b>Process Safety Information</b> Process Chemistry Block Flow Diagram Maximum Intended Inventory Worksheet Safe Operating Limits Safe Upper and Lower Limits- worksheet Deviation Consequences Materials of Construction Information located in the Equip Info Mngr Section Piping and Instrument Diagrams (P&IDs) Electrical Classification Info on all electrical wiring/equipment for this design Design Codes and Standards Worksheet for standards used Relief Systems Worksheet for relief safety systems in place Safety Systems Worksheet for safety systems in place Inadvertent Mixing Ventilation System SDS Documents

**IAS PSM LABOR AND COST WORKSHEET - UPFRONT DETAIL: (continued)**

ACTIVITY
Process Hazard Analysis
IDALS Anhydrous Ammonia Facility Checklist
Operating Procedures
Training <ul style="list-style-type: none"> <li>IA NH3 Awareness</li> <li>Operator Training</li> <li>PSM Training for employees</li> </ul>
Mechanical Integrity (TOS) <ul style="list-style-type: none"> <li>Maintenance Records/Inspection</li> <li>List of each piece of equipment in the process                             <ul style="list-style-type: none"> <li>Master Equipment List</li> <li>All maintenance/specs manuals from manufacturer</li> <li>Data Plate Information</li> <li>U1-A form for storage tank</li> <li>Serial numbers</li> <li>Expiration dates for hoses or other equipment</li> <li>NTIP sheets for nurse tanks</li> <li>Maintenance records</li> </ul> </li> <li>Testing</li> <li>Maintenance Schedule (Written)                             <ul style="list-style-type: none"> <li>Maintenance</li> <li>Inspection</li> <li>Testing</li> </ul> </li> </ul>
Compliance Audit
Incident Investigation
Management of Change <ul style="list-style-type: none"> <li>Work orders and approval before change is made</li> <li>Documentation of change</li> <li>Update PSM accordingly</li> </ul>
Pre-start Up Safety Review
Employee Participation Plan
Hot Works <ul style="list-style-type: none"> <li>Forms</li> <li>Procedures</li> </ul>
Contractors <ul style="list-style-type: none"> <li>List of Approved Contractors</li> <li>OSHA 300 injury log for contractors</li> <li>Documentation of training for contractor employees</li> </ul>
Emergency Response Plan
Site Pictures

**IAS PSM LABOR AND COST WORKSHEET - ANNUAL:**

Activity	HOURS TO COMPLETE	GROUP RESPONSIBLE			ESTIMATED TOTAL COSTS	
		Consultant	Engineer	IAS	Consultant/ Engineer	IAS
Introduction	0.25	X		X	\$31	
Current CDX Submittal	1.00	X		X	\$125	
Management Flow Chart	0.50	X		X	\$63	
Off-site Consequence Analysis (WCS & ACS)	0.50	X		X	\$63	
Five Year Accident History	0.25	X		X	\$31	
Process Safety Information	1	X	X	X	\$125	
Process Hazard Analysis	5.00	X	X	X	\$625	
IDALS Anhydrous Ammonia Facility Checklist	0.50	X		X	\$63	
Operating Procedures	2.00	X	X	X	\$250	
Training	1	X		X	\$125	
Mechanical Integrity (TOS)	2	X	X	X	\$250	
Compliance Audit	0.50	X		X	\$63	
Incident Investigation	0.50	X		X	\$63	
Management of Change	2.00	X	X	X	\$250	
Pre-start Up Safety Review	0.50	X	X	X	\$63	
Employee Participation Plan	3.00	X		X	\$375	
Hot Works	0.50	X		X	\$63	
Contractors	0.50	X		X	\$63	
Emergency Response Plan	0.75	X	X	X	\$94	
Site Pictures	0.50	X		X	\$63	
Annual training	20.00	X		X	\$375	\$850
Supplies and misc						\$250
Software Cost Annually per location						\$956
<b>Totals</b>	<b>42.75</b>				<b>\$3,219</b>	<b>\$2,056</b>
<b>Total PSM estimated cost per location - Annual</b>						<b>\$5,275</b>

Does not include recent EPA proposed rule changes

PSM Requires an Annual Audit of All PSM Components.

This audit would be completed by the combined work from Consultant, Engineer, and IAS.

**IAS cost summary estimates to comply with PSM:**

Total IAS PSM costs - Upfront	\$725,112
Total IAS PSM costs per location (27) - Upfront	\$26,856
Total Upfront PSM costs ammortized over 5 years	\$5,371
Total IAS ongoing annual PSM costs per location	\$5,275
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Total annual cost per location	\$10,646

IAS Location GL#	Customers	Annual tons	PSM annual cost/ton	
Location 46	136	3,219	3.31	
Location 11	61	2,079	5.12	
Location 15	71	2,078	5.12	
Location 25	98	1,945	5.47	
Location 13	65	1,434	7.42	
Location 19	72	1,465	7.27	
Location 38	53	1,294	8.23	
Location 32	34	1,289	8.26	
Location 17	46	1,230	8.66	
Location 26	63	1,195	8.91	
Location 35	29	1,114	9.56	
Location 21	50	974	10.93	Cutoff point
Location 39	24	945	11.27	
Location 24	34	896	11.88	
Location 36	48	890	11.96	
Location 45	35	864	12.32	
Location 48	29	731	14.56	
Location 6	23	680	15.66	
Location 22	17	598	17.80	
Location 30	21	546	19.50	
Location 19A	5	340	31.31	
Location 40	26	499	21.33	
Location 47	20	479	22.23	
Location 23	26	461	23.09	
Location 33	19	359	29.65	
Location 41	12	254	41.91	
Location 29	4	20	532.30	
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Totals	1,121	27,878	10.31	
27 locations				

**Estimated eliminated locations based on \$10/ton limit of additional cost**

total	393	9,536
%	35%	34%

16 locations - 59% of total locations