

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

JUL 07 2009

REPLY TO THE ATTENTION OF:

SC-6J

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Bill Tumpane Plant Director MARS – Burr Ridge Plant 660 West 79th Street Burr Ridge, IL 60527

RE: MARS – Burr Ridge Plant, Burr Ridge, Illinois Expedited Settlement Agreement ESA Docket No. RMP-09-ESA-007 Docket No. CAA-05-2009-0026

Dear Mr. Tumpane:

Enclosed please find a copy of the fully executed Expedited RMP Settlement Agreement (ESA) in resolution of the above case. The ESA is binding on U.S. EPA and the MARS-Burr Ridge Plant. U.S. EPA will take no further action against the MARS-Burr Ridge Plant for the violations cited in the ESA. The ESA requires no further action on your part.

Please feel free to contact Silvia Palomo at (312)353-2172 if you have any questions regarding the enclosed document or if you have any other question about the program. Thank you for your assistance in resolving this matter.

Sincerely yours,

Mark J. Horwitz, Chief

Chemical Emergency

Preparedness & Prevention Section

Enclosure(s)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

EXPEDITED SETTLEMENT AGREEMENT (ESA)

DOCKET NO: RMP-09-ESA-007

CAA-05-2009-0026

This ESA is issued to: M&M/Mars

At: 15 W 660 79th Street, Burr Ridge, Illinois

for violating Section 112(r)(7) of the Clean Air Act.

this administrative enforcement action.

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This Expedited Settlement Agreement (ESA) is being entered into by the United States Environmental Protection Agency (EPA), Region 5, by its duly delegated official, the Director, Superfund Division, and by Respondent pursuant to Section 113(a)(3) and (d) of the Clean Air Act, 42 U.S.C. § 7413(a)(3) and (d), and by 40 C.F.R. § 22.13(b). On February 23, 2009, EPA obtained the concurrence of the U.S. Department of Justice, pursuant to Section 113(d)(1) of the Act, 42 U.S.C. §7413(d)(1), to pursue

ALLEGED VIOLATIONS

On June 19, 2008, an authorized representative of the EPA conducted a compliance inspection of the subject facility (Respondent) to determine compliance with the Risk Management Plan (RMP) regulations promulgated at 40 C.F.R. Part 68 under Section 112(r) of the Act. EPA found that the Respondent had violated regulations implementing Section112(r) of the Act by failing to comply with the regulations as noted on the attached RISK MANAGEMENT PLAN INSPECTION FINDINGS, ALLEGED VIOLATIONS AND PROPOSED PENALTY SHEET (FORM), which is hereby incorporated by reference.

SETTLEMENT

In consideration of Respondent's size of business, its full compliance history, its good faith effort to comply, and other factors as justice may require, and upon consideration of the entire record the parties enter into the ESA in order to settle the violations, described in the attached FORM for the total penalty amount of \$1,750.00.

This settlement is subject to the following terms and conditions:

The Respondent by signing below waives any objections that it may have regarding jurisdiction, neither admits nor denies the specific factual allegations contained herein and in the FORM, and consents to the assessment of the penalty as stated above. Respondent waives its rights to a hearing afforded by Section 113(d)(2)(A) of the Act, 42 U.S.C §7413(d)(2)(A), and to appeal this ESA. Each party to this action shall bear its own costs and fees, if any. Respondent also certifies, subject to civil and criminal penalties for making a false submission to the United States Government, that the Respondent has corrected the violations listed in the attached FORM and has sent a cashier's check or certified check (payable to the "Treasurer, United States of America") in the amount of \$1,750.00 in payment of the full penalty amount to the following address:



U.S. Environmental Protection Agency Fines and Penalties Cincinnati Finance Center PO Box 979077 St. Louis, MO 63197-9000

The DOCKET NUMBER OF THIS ESA must be included on the check. (The DOCKET NUMBER is located at the top left corner of this ESA.)

This original ESA and a copy of the check must be sent by certified mail to:

Silvia Palomo Chemical Emergency Preparedness and Prevention Section (SC-6J) U.S. Environmental Protection Agency 77 West Jackson Boulevard Chicago, Illinois 60604-3590

Upon Respondent's submission of the signed original ESA, EPA will take no further civil action against Respondent for the alleged violations of the Act referenced in the FORM. EPA does not waive any other enforcement action for any other violations of the Clean Air Act or any other statute.

If the signed original ESA with an attached copy of the check is not returned to the EPA Region 5 office at the above address in correct form by the Respondent within 45 days of the date of Respondent's receipt of it (90 days if an extension is granted), the proposed ESA is withdrawn, without prejudice to EPA's ability to file an enforcement action for the violations identified herein and in the FORM.

This ESA is binding on the parties signing below.

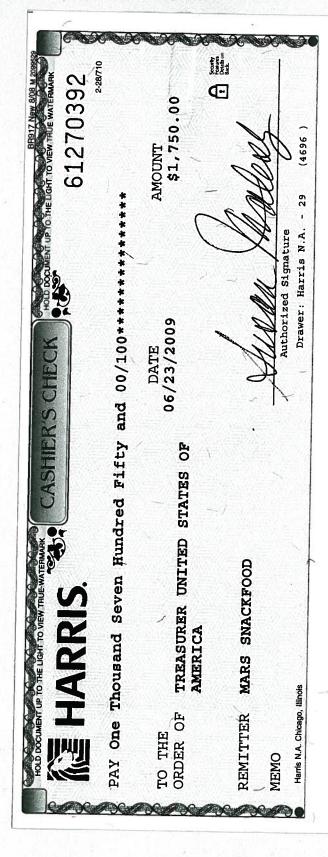
This ESA is effective upon filing with the Regional Hearing Clerk.

FOR RESPONDENT:	1
Signature: Bill Impare	Date: June 16, 200
Name (print): Bill Tump one	\mathcal{O}
Title (print): Supply: DIRECtor	
Richard C. Karl, Director Superfund Division	Date: <u>7/2/09</u>
I hereby ratify the ESA and incorporate it herein by reference. It	is so ORDERED.
Me Am Am Bharat Mathur	Date: 7/2/09
Acting Regional Administrator	

CAA-05-2009-0026

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REGIONAL HEARING CLERK USEPA REGION 5



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) adjet # CAA-05-2009-0026

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RISK MANAGEMENT PROGRAM INSPECTION FINDINGS, ALLEGED VIOLATIONS AND PROPOSED PENALTY SHEET Program Level 3 Process Checklist

Program Level 3 Process Checklist

Da	te RMP submitted:	CAA-05-2009-0026	REGIONAL HEA		CLERK	r h
Se	ction A-Management [68.	3.15]	REGIO			
Ma Co	nagement system developed amments:	and implemented as provided in 40 CFR 68.15?	s	ΟМ	u U	□ N/A
Ha	s the owner or operator:					
1.	Developed a managemer elements? [68.15(a)]	ent system to oversee the implementation of the risk ma	anagement program	XY	□N	□ N/A
	Assigned a qualified primplementation, and in the second sec	person or position that has the overall responsibility for integration of the risk management program elements	r the development, ? [68.15(b)]	XY	□N	□ N/A
3.	management program ar document? [68.15(c)] The technical manager, and	ons responsible for implementing individual requirement and defined the lines of authority through an organization he risk management program requirements are imp d the utility technicians. However, the responsibilition cumented in a memo or an organization chart.	on chart or similar	□Y	⊠N	□ N/A
Ser	ction B: Hazard Assessm	nent [68.20-68.42]				
Cor	mments: The facility opera	nd documented as provided in 40 CFR 68.20-68.42? rates two refrigeration systems with anhydrous amo onia in both systems is 100,000 lbs.	□S monia as a refrigeran	OM (□ U □ e total	N/A
Haz	zard Assessment: Offsite	e consequence analysis parameters [68.22]	*			
1.	a. For toxics: the endpo	its for offsite consequence analysis for a worst-case scenario: points provided in Appendix A of 40 CFR Part 68? [68.22(a) explosion resulting in an overpressure of 1 psi? [68.22(a)(2))	0(1)1	XY	□N	□ N/A
or	☐ c. For flammables: a fir [68.22(a)(2)(ii)]	ire resulting in a radiant heat/exposure of 5 kw/m ² for 4	0 seconds?			
<u> </u>	d. For flammables: a codocuments or other gener	concentration resulting in a lower flammability limit, as prally recognized sources? [68.22(a)(2)(iii)]	provided in NFPA			
	[68.22(a)] ■ a. For toxics: the endp ■ b. For flammables: an □ c. For flammables: a f [68.22(a)(2)(ii)] ■ d. For flammables: a d	ints for offsite consequence analysis for an alternative repoints provided in Appendix A of 40 CFR Part 68? [68. n explosion resulting in an overpressure of 1 psi? [68.2 fire resulting in a radiant heat/exposure of 5 kw/m2 for concentration resulting in a lower flammability limit, as generally recognized sources? [68.22(a)(2)(iii)]	.22(a)(1)] .22(a)(2)(i)] · 40 seconds?	XY	□N	□ N/A
3.	Used appropriate wind speed	ds and stability classes for the release analysis? [68.22(b)]		XY	□N	□ N/A
4.	Used appropriate ambient	t temperature and humidity values for the release analy	/sis? [68.22(c)]	XY	ΠN	□ N/A
5.	Used appropriate values fo	or the height of the release, for the release analysis? [6	8.22(d)]	XY	ΠN	□ N/A
6.	Used appropriate surface r	roughness values for the release analysis? [68.22(e)]		XIY	□N	□ N/A

Program Level 3 Process Checklist

7.	Do tables and models, used for dispersion analysis of toxic substances, appropriately account for dense or neutrally buoyant gases? [68.22(f)]	XY		I □ N/A
8.	Were liquids, other than gases liquefied by refrigeration only, considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for a stationary source, or at process temperature, whichever is higher? [68.22(g)]	ΟY	ΠN	(X) N/A
Ha	zard Assessment: Worst-case release scenario analysis [68.25]			27
9.	Analyzed and reported in the RMP one worst-case release scenario estimated to create the greatest distance to an endpoint resulting from an accidental release of a regulated toxic substance from covered processes under worst-case conditions? [68.25(a)(2)(i)]	XY	ΠN	□N/A
10.	Analyzed and reported in the RMP one worst-case release scenario estimated to create the greatest distance to an endpoint resulting from an accidental release of a regulated flammable substance from covered processes under worst-case conditions? [68.25(a)(2)(ii)]	ΟY	ПN	XIN/A
11.	Analyzed and reported in the RMP additional worst-case release scenarios for a hazard class if the a worst-case release from another covered process at the stationary source potentially affects public receptors different from those potentially affected by the worst-case release scenario developed under 68.25(a)(2)(i) or 68.25(a)(2)(ii)? [68.25(a)(2)(iii)]	ΟY	□N	XIN/A
12.	Has the owner or operator determined the worst-case release quantity to be the greater of the following: [68.25(b)] □ a. If released from a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity? [68.25(b)(1)] Anhydrous ammonia in the receiver 19,000 lbs. □ b. If released from a pipe, the greatest amount held in the pipe, taking into account administrative controls that limit the maximum quantity? [68.25(b)(2)]	IXIY	ON	□N/A
13a	Has the owner or operator for toxic substances that are normally gases at ambient temperature and handled as a gas or liquid under pressure:			
	13.a.(1) Assumed the whole quantity in the vessel or pipe would be released as a gas over 10 minutes? [68.25(c)(1)]	XIY	□N	□N/A
	13.a.(2) Assumed the release rate to be the total quantity divided by 10, if there are no passive mitigation systems in place? [68.25(c)(1)]	XY	□N	□N/A
13.t	D. Has the owner or operator for toxic gases handled as refrigerated liquids at ambient pressure:		N/A	
	13.b.(1) Assumed the substance would be released as a gas in 10 minutes, if not contained by passive mitigation systems or if the contained pool would have a depth of 1 cm or less? [68.25(c)(2)(i)]	ΠY	□N	□N/A
	13.b.(2) [Optional for owner / operator] Assumed the quantity in the vessel or pipe would be spilled instantaneously to form a liquid pool, if the released substance would be contained by passive mitigation systems in a pool with a depth greater than 1 cm? [68.25(c)(2)(ii)]	ΩY	ΠN	□N/A
	13.b.(3) Calculated the volatilization rate at the boiling point of the substance and at the conditions specified in 68.25(d)? [68.25(c)(2)(ii)]	ΠY	□N	□N/A
13.c	. Has the owner or operator for toxic substances that are normally liquids at ambient temperature:		N/A	
	13.c.(1) Assumed the quantity in the vessel or pipe would be spilled instantaneously to form a liquid pool? [68.25(d)(1)]	ΠY	□N	□N/A

Program Level 3 Process Checklist

13.c.(2) Determined the surface area of the pool by assuming that the liquid spreads to 1 cm deep, if there is no passive mitigation system in place that would serve to contain the spill and limit the surface area, or if passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate? [68.25(d)(1)(i)]	i i	ΠN	□N/A
13.c.(3) Taken into account the actual surface characteristics, if the release would occur onto a surface that is not paved or smooth? [68.25(d)(1)(ii)]	ΠY	ΠN	□N/A
13.c.(4) Determined the volatilization rate by accounting for the highest daily maximum temperature in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution? [68.25(d)(2)]	ΠY	ΩN	□N/A
13.c.(5) Determined the rate of release to air from the volatilization rate of the liquid pool? [68.25(d)(3)]	ΠY	ΩN	□N/A
13.c.(6) Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.25(d)(3)]	ΟY	ΩN	□N/A
13.d. Has the owner or operator for <u>flammables</u> :	19	N/A	4
13.d.(1) Assumed the quantity in a vessel(s) of flammable gas held as a gas or liquid under pressure or refrigerated gas released to an undiked area vaporizes resulting in a vapor cloud explosion? [68.25(e)]	ΠY	□N	□N/A
13.d.(2) For refrigerated gas released to a contained area or liquids released below their atmospheric boiling point, assumed the quantity volatilized in 10 minutes results in a vapor cloud? [68.25(f)]	ΠY	□N	□N/A
13.d.(3) Assumed a yield factor of 10% of the available energy is released in the explosion for determining the distance to the explosion endpoint, if the model used is based on TNT-equivalent methods? [68.25(e)]	ΩY	ΩN	□N/A
14. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.25(g)]	XIY	ΠN	□N/A
15. Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.25(g)] a. What modeling technique did the owner or operator use? [68.25(g)] RMP*Comp	XY	ΩN	□N/A
16. Ensured that the passive mitigation system, if considered, is capable of withstanding the release event triggering the scenario and will still function as intended? [68.25(h)]	XY	ΠN	□N/A
 17. Considered also the following factors in selecting the worst-case release scenarios: [68.25(i)] □ a. Smaller quantities handled at higher process temperature or pressure? [68.25(i)(1)] □ b. Proximity to the boundary of the stationary source? [68.25(i)(2)] 	ΠY	ΩN	⊠N/A
Hazard Assessment: Alternative release scenario analysis [68.28]			
18. Identified and analyzed at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all	XY	ΩN	□ N/A

Program Level 3 Process Checklist

flammable substances held in covered processes? [68.28(a)]	I		
19. Selected a scenario: [68.28(b)] ☑ a. That is more likely to occur than the worst-case release scenario under 68.25? [68.28(b)(1)(i)] □ b. That will reach an endpoint off-site, unless no such scenario exists? [68.28(b)(1)(ii)]	XY	ΠN	□ N//
	ļ		
 20. Considered release scenarios which included, but are not limited to, the following: [68.28(b)(2)] a. Transfer hose releases due to splits or sudden hose uncoupling? [68.28(b)(2)(i)] b. Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds? [68.28(b)(2)(ii)] Relief valve failure. c. Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure? [68.28(b)(2)(iii)] d. Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks? [68.28(b)(2)(iv)] e. Shipping container mishandling and breakage or puncturing leading to a spill? [68.28(b)(2)(v)] 	XY	ON	□ N//
21. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.28(c)]	XIY	ΠN	□ N/A
22. Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.28(c)] EPA's RMP*Comp	XY	□N	□ N/A
23. Ensured that the passive and active mitigation systems, if considered, are capable of withstanding the release event triggering the scenario and will be functional? [68.28(d)]	XY	ΠN	□ N/A
24. Considered the following factors in selecting the alternative release scenarios: [68.28(e)] a. The five-year accident history provided in 68.42? [68.28(e)(1)] b. Failure scenarios identified under 68.67? [68.28(e)(2)]	XIY	□N	□ N/A
Hazard Assessment: Defining off-site impacts-Population [68.30]			
25. Estimated population that would be included in the distance to the endpoint in the RMP based on a circle with the point of release at the center? [68.30(a)]	⊠Y	ΠN	□ N/A
 Identified the presence of institutions, parks and recreational areas, major commercial, office, and industrial buildings in the RMP? [68.30(b)] 	İΧΙΥ	□N °	□ N/A
27. Used most recent Census data, or other updated information to estimate the population? [68.30(c)] LANDVIEW CENSUS 2000	XY	ΠN	□ N/A
28. Estimated the population to two significant digits? [68.30(d)]	EXIY	ΠN	□ N/A
Hazard Assessment: Defining off-site impacts-Environment [68.33]			
29. Identified environmental receptors that would be included in the distance to the endpoint based on a circle with the point of release at the center? [68.33(a)]	XY	□N	□ N/A
30. Relied on information provided on local U.S.G.S. maps, or on any data source containing U.S.G.S. data to identify environmental receptors? [Source may have used LandView to obtain information] [68.33(b)]	XY	□N	□ N/A
Hazard Assessment: Review and update [68.36]			

Program Level 3 Process Checklist

	31. Reviewed and updated the off-site consequence analyses at least once every five years? [68.36(a)]	XY	ΠN	□ N/A
	32. Completed a revised analysis and submit a revised RMP within six months of a change in processes, quantities stored or handled, or any other aspect that might reasonably be expected on increase or decrease the distance to the endpoint by a factor of two or more? [68.36(b)]	ΩY	ΩN	□ N/A
	Hazard Assessment: Documentation [68.39] Has the owner/operator maintained the following records:			·
	33. For worst-case scenarios: a description of the vessel or pipeline and substance selected, assumptions and parameters used, the rationale for selection, and anticipated effect of the administrative controls and passive mitigation on the release quantity and rate? [68.39(a)]	XIY	□N	□ N/A
	34. For alternative release scenarios: a description of the scenarios identified, assumptions and parameters used, the rationale for the selection of specific scenarios, and anticipated effect of the administrative controls and mitigation on the release quantity and rate? [68.39(b)]	IX IY	□N	□ N/A
	35. Documentation of estimated quantity released, release rate, and duration of release? [68.39(c)]	XY	ΠN	□ N/A
	36. Methodology used to determine distance to endpoints? [68.39(d)]	XIY	ΠN	□ N/A
	37. Data used to estimate population and environmental receptors potentially affected? [68.39(e)]	XIY	ΩN	□ N/A
	Hazard Assessment: Five-year accident history [68.42]			
,	38. Has the owner or operator included all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage? [68.42(a)] No accidents to report.	ΠY	□N	⊠ N/A
	39. Has the owner or operator reported the following information for each accidental release: [68.42(b)] a. Date, time, and approximate duration of the release? [68.42(b)(1)] b. Chemical(s) released? [68.42(b)(2)] c. Estimated quantity released in pounds and percentage weight in a mixture (toxics)? [68.42(b)(3)] d. NAICS code for the process? [68.42(b)(4)] e. The type of release event and its source? [68.42(b)(5)] f. Weather conditions (if known)? [68.42(b)(6)] g. On-site impacts? [68.42(b)(7)] h. Known offsite impacts? [68.42(b)(8)] i. Initiating event and contributing factors (if known)? [68.42(b)(9)] j. Whether offsite responders were notified (if known)? [68.42(b)(10)] k. Operational or process changes that resulted from investigation of the release? [68.42(b)(11)]	□Y	□N	□ N/A
٤	Section C: Prevention Program			
	Implemented the Program 3 prevention requirements as provided in 40 CFR 68.65 - 68.87?	OM C	ם ט ב	N/A
F	Prevention Program- Process Safety information [68.65]			
1	Has the owner or operator compiled written process safety information, which includes information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process, before conducting any process hazard analysis required by the rule? [68.65(a)] MSDS Does the process safety information contain the following for hazards of the substances: [68.65(b)] a. Toxicity information? [68.65(b)(1)] b. Permissible exposure limits? [68.65(b)(2)]	XY	□N	□ N/A

Program Level 3 Process Checklist

	 □ c. Physical data? [68.65(b)(3)] □ d. Reactivity data? [68.65(b)(4)] □ e. Corrosivity data? [68.65(b)(5)] 		-	
	☐ f. Thermal and chemical stability data? [68.65(b)(6)] ☐ g. Hazardous effects of inadvertent mixing of materials that could foreseeably occur? [68.65(b)(7)]			
2	Has the owner documented information pertaining to technology of the process? ☑ A block flow diagram or simplified process flow diagram? [68.65(c)(1)(i)] ☐ Process.chemistry? [68.65(c)(1)(ii)] N/A ☑ Maximum intended inventory? [68.65(c)(1)(iii)] ☑ Safe upper and lower limits for such items as temperatures, pressures, flows, or compositions? [68.65(c)(1)(iv)] ☑ An evaluation of the consequences of deviation? [68.65(c)(1)(iv)] Does the process safety information contain the following for the equipment in the process: [68.65(d)(1)] ☑ Materials of construction? 68.65(d)(1)(i)] ☑ Piping and instrumentation diagrams [68.65(d)(1)(ii)] ☑ Relief system design and design basis? [68.65(d)(1)(iv)] ☑ Ventilation system design? [68.65(d)(1)(v)] ☑ Design codes and standards employed? [68.65(d)(1)(vi)] ☐ Material and energy balances for processes built after June 21, 1999? [68.65(d)(1)(vii)] N/A ☑ Safety systems? [68.65(d)(1)(viii)] Five level alarm system	XIY	□N a	□ N/A
3.	Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices? [68.65(d)(2)]	XY	□N	□ N/A
4.	Has the owner or operator determined and documented that existing equipment, designed and constructed in accordance with codes, standards, or practices that are no longer in general use, is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]	XY	□N	□ N/A
Pr	evention Program- Process Hazard Analysis [68.67]			
5.	Has the owner or operator performed an initial process hazard analysis (PHA), and has this analysis identified, evaluated, and controlled the hazards involved in the process? [68.67(a)] The PHA was conducted in 1999, and the revalidation was conducted on May 6, 2004. The revalidation was a complete PHA on the refrigeration system and it was the only PHA reviewed during the inspection.	XY	ΩN	□ N/A
6.	Has the owner or operator determined and documented the priority order for conducting PHAs, and was it based on an appropriate rationale? [68.67(a)]	XY	ΠN	□ N/A
7.	Has the owner used one or more of the following technologies to conduct process PHA: [68.67(b)] What-if? [68.67(b)(1)] Checklist? [68.67(b)(2)] What-if/Checklist? [68.67(b)(3)] Hazard and Operability Study (HAZOP) [68.67(b)(4)] Failure Mode and Effects Analysis (FMEA) [68.67(b)(5)] Fault Tree Analysis? [68.67(b)(6)] An appropriate equivalent methodology? [68.67(b)(7)]	E Y	□N	□ N/A
8.	Did the PHA address: The hazards of the process? [68.67(c)(1)] Identification of any incident which had a likely potential for catastrophic consequences? [68.67(c)(2)]	XY	□N	□ N/A

Program Level 3 Process Checklist

Engineering and administrative controls applicable to hazards and interrelationships?[68.67(c)(3)] Consequences of failure of engineering and administrative controls? [68.67(c)(4)] Stationary source siting? [68.67(c)(5)] Human factors? [68.67(c)(6)]			
An evaluation of a range of the possible safety and health effects of failure of controls? [68.67(c)(7)]	25		
9. Was the PHA performed by a team with expertise in engineering and process operations and did the team include appropriate personnel? [68.67(d)] The revalidation team consisted of: Bonar Engineering, as team leader, the RMP Manager, and the utility technicians.	the 🖾 Y	ŪΝ	□ N//
10. Has the owner or operator established a system to promptly address the team's findings and recommendation assured that the recommendations are resolved in a timely manner and documented; documented what action are to be taken; completed actions as soon as possible; developed a written schedule of when these actions to be completed; and communicated the actions to operating, maintenance, and other employees whose we assignments are in the process and who may be affected by the recommendations? [68.67(e)]	ions s are	□N	□ N//
11. Has the PHA been updated and revalidated by a team every five years after the completion of the initial PI to assure that the PHA is consistent with the current process? [68.67(f)] The PHA was updated on May 2004.	HA X Y	□N	□N/A
12. Has the owner or operator retained PHAs and updates or revalidations for each process covered, as well as resolution of recommendations for the life of the process? [68.67(g)]	s the Y	□N	□ N/A
Prevention Program- Operating procedures [68.69]			
13. Has the owner or operator developed and implemented written operating procedures that provides instruction or steps for conducting activities associated with each covered process consistent with the safety information [68.69(a)]	ions XY	□N	□ N/A
14. Do the procedures address the following: [68.69(a)] Steps for each operating phase: [68.69(a)(1)] Initial Startup? [68.69(a)(1)(ii)] Normal operations? [68.69(a)(1)(iii)] Temporary operations? [68.69(a)(1)(iii)] Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is execute a safe and timely manner? [68.69(a)(1)(iv)] Emergency operations? [68.69(a)(1)(v)] Normal shutdown? [68.68(a)(1)(vi)] Startup following a turnaround, or after emergency shutdown? [68.69(a)(1)(vii)] Operating limits: [68.68(a)(2)] Consequences of deviations [68.69(a)(2)(i)] Steps required to correct or avoid deviation?[68.69(a)(2)(ii)] Steps required to correct or avoid deviation?[68.69(a)(2)(ii)] Properties of, and physical hazards presented by, the chemicals used in the process[68.69(a)(3)(i)] Precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment? [68.69(a)(3)(ii)] Control measures to be taken if physical contact or airborne exposure occurs? [68.69(a)(3)(iii)] Quality control for raw materials and control of hazardous chemical inventory levels? [68.69(a)(3)(iv)] Any special or unique hazards? [68.69(a)(3)(v)]		N 🖸	N/A

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15. Are operating procedures readily accessible to employees who are involved in a process? [68.69(b)] The	XY	□N	□ N/A
operating procedures are available on line and a hard copy of the procedures is found in the control room.			
16. Has the owner or operator certified annually that the operating procedures are current and accurate and that procedures have been reviewed as often as necessary?[68.69(c)] The operating procedures are reviewed by all the technicians and the RMP manager and they annually certify the procedures.	XY	□N	□ N/A
17. Has the owner or operator developed and implemented safe work practices to provide for the control of hazards during specific operations, such as lockout/tagout? [68.69(d)]	XY	ΠN	□ N/A
Prevention Program - Training [68.71]			
18. Has each employee involved in operating a process, and each employee before being involved in operating a newly assigned process, been initially trained in an overview of the process and in the operating procedures?[68.71(a)(1)] The utility technicians have received operators level 1 and 2 refrigeration certification from the HAR/RETA. The operators also receive HAZMAT training and training given by other institutions on ammonia refrigeration.	⊠Y	□N	□ N/A
19. Did initial training include emphasis on safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks? [68.71(a)(1)]	XY	□N	□ N/A
20. In lieu of initial training for those employees already involved in operating a process on June 21, 1999, an owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as specified in the operating procedures [68.71(a)(2)]	ΠY	□N	□ N/A
21. Has refresher training been provided at least every three years, or more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process? [68.71(b)] The facility needs to develop refresher training on the operating procedures and need to get input from the employees regarding the frequency of the training.	ΠY	⊠N	□ N/A
22. Has owner or operator ascertained and documented in record that each employee involved in operating a process has received and understood the training required?	XY	ΠN	□ N/A
23. Does the prepared record contain the identity of the employee, the date of the training, and the means used to verify that the employee understood the training? [68.71(c)] Training matrix	ΣΥ	ΠN	□ N/A
Prevention Program - Mechanical Integrity [68.73]			
24. Has the owner or operator established and implemented written procedures to maintain the ongoing integrity of the process equipment listed in 68.73(a)? [68.73(b)] The mechanical integrity program is tracked by a computer program (MIS). The program keeps track of the inspection, oil changes, and tests that need to be conducted on the pieces of equipment. The senior technician is responsible for reviewing and printing the "work orders" for the pieces of equipment. The work orders describe the job that need to be done on the equipment. The jobs are assigned to the technicians and once the jobs are done, the technicians update the information on the "work orders". Pressure vessels are inspected by the state of Illinois Fire Marshall every year. Non-destructive ultrasonic testing is performed on the pipes and major pieces of equipment by a contractor.	υY	XI N	□ N/A

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	Pressure relief valves are replaced every 5 years per manufacture's recommendations and good engineering practices. However, the facility failed to replace all the pressure relief			
	valves within the five year period.			
25	Has the owner or operator trained each employee involved in maintaining the on-going integrity of process equipment? [68.73(c)] The employees receive training from different sources: RETA, Garden City, OTJ, and Mentors.	XY	ΠN	□ N//
26	Performed inspections and tests on process equipment? [68.73(d)(1)]	⊠ Y	ΠN	□ N//
27.	Followed recognized and generally accepted good engineering practices for inspections and testing procedures? [68.73(d)(2)]	XY	ΠN	□ N/A
28.	Ensured the frequency of inspections and tests of process equipment is consistent with applicable manufacturers' recommendations, good engineering practices, and prior operating experience? [68.73(d)(3)]	XY	ΠN	□ N/A
29.	Documented each inspection and test that had been performed on process equipment, which identifies the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test? [68.73(d)(4)]	XIY	ΠN	□ N/A
30.	Corrected deficiencies in equipment that were outside acceptable limits defined by the process safety information before further use or in a safe and timely manner when necessary means were taken to assure safe operation? [68.73(e)]	ΠY	ΠN	X N/A
31.	Assured that equipment as it was fabricated is suitable for the process application for which it will be used in the construction of new plants and equipment? [68.73(f)(1)]	ΠY	□N	X N/A
32.	Performed appropriate checks and inspections to assure that equipment was installed properly and consistent with design specifications and the manufacturer's instructions? [68.73(f)(2)]	ΩY	ΠN	X N/A
33.	Assured that maintenance materials, spare parts and equipment were suitable for the process application for which they would be used? [68.73(f)(3)]	XY	□N	□ N/A
Pre	vention Program - Management Of Change [68.75]			_
34.	Has the owner or operator established and implemented written procedures to manage changes to process chemicals, technology, equipment, and procedures, and changes to stationary sources that affect a covered process? [68.75(a)] The last MOC was done on March 22, 2007, for the replacement of an HVAC. Although, the replacement was in-kind, the facility prepared a MOC for the replacement. According to the facility, any replacement in kind on big pieces of equipment needs a MOC.	EXIY	□N	□ N/A
35.	Do procedures assure that the following considerations are addressed prior to any change: [68.75(b)] The technical basis for the proposed change? [68.75(b)(1)] Impact of change on safety and health? [68.75(b)(2)] Modifications to operating procedures? [68.75(b)(3)] Necessary time period for the change? [68.75(b)(4)] Authorization requirements for the proposed change? [68.75(b)(5)]	XY	ΠN	□ N/A
36.	Were employees, involved in operating a process and maintenance, and contract employees, whose job tasks would be affected by a change in the process, informed of, and trained in, the	XY	ΠN	□ N/A

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	change prior to start-up of the process or affected parts of the process? [68.75(c)]			
37	. If a change resulted in a change in the process safety information, was such information updated accordingly? [68.75(d)]	ΩY	ΠN	□ N//
38	If a change resulted in a change in the operating procedures or practices, had such procedures or practices been updated accordingly? [68.75(e)]	ΩY	ΠN	□ N/A
Pr	evention Program - Pre-startup Safety Review [68.77]			
	39. Did the pre-startup safety review confirm that prior to the introduction of a regulated substance to a process: [68.77(b)]	ΩY	□N	X N/A
	 □ Construction and equipment was in accordance with design specifications? [68.77(b)(1)] □ Safety, operating, maintenance, and emergency procedures were in place and were adequate? [68.77(b)(2)] □ For new stationary sources, a process hazard analysis had been performed and recommendations had been resolved or implemented before startup? [68.77(b)(3)] □ Modified stationary sources meet the requirements contained in management of change? [68.77(b)(3)] □ Training of each employee involved in operating a process had been completed? [68.77(b)(4)] 			
Pr	evention Program - Compliance audits [68.79]			-
1.	Has the owner or operator certified that the stationary source has evaluated compliance with the provisions of the prevention program at least every three years to verify that the developed procedures and practices are adequate and being followed? [68.79(a)] The facility failed to timely conduct the compliance audits. The facility has conducted two compliance audits since the first RMP submittal but in both occasions the compliance audits were conducted every four years instead of three years. The first audit was conducted on July 22, 2003, and the second audit was conducted on April 17, 2007 by Bonar Engineering.	ΠY	⊠N	□N/A
2.	Has the audit been conducted by at least one person knowledgeable in the process? [68.79(b)]	XY	ΠN	□ N/A
3.	Are the audit findings documented in a report? [68.79(c)]	XY	ΠN	□ N/A
4.	Has the owner or operator promptly determined and documented an appropriate response to each of the findings of the audit and documented that deficiencies had been corrected? [68.79(d)]	XY	ΠN	□ N/A
5.	Has the owner or operator retained the two most recent compliance reports? [68.79(e)]	XY	۵N	□ N/A
Pre	evention Program - Incident investigation [68.81]			
1.	Has the owner or operator investigated each incident which resulted in, or could reasonably have resulted in a catastrophic release of a regulated substance? [68.81(a)] On January 6, 2003, the facility had a release of anhydrous ammonia. The release occurred as a result of the lifting of a pressure relief valve from a condenser.	XY	□N	□N/A
2.	Were all incident investigations initiated not later than 48 hours following the incident? [68.81(b)]	XY	ΠN	□ N/A
3.	Was an accident investigation team established and did it consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of a contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident? [68.81(c)]	XY	ΠN	□ N/A

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4. Was a report prepared at the conclusion of every investiga	tion?[68.81(d)]	_ □N	□ N//
 5. Does every report include: [68.81(d)] □ Date of incident? [68.81(d)(1)] □ Date investigation began? [68.81(d)(2)] □ A description of the incident? [68.81(d)(3)] □ The factors that contributed to the incident? [68.81(d)(4)] □ Any recommendations resulting from the investigation? [68.8 	图Y 1(d)(5)]	□N	
Has the owner or operator established a system to address recommendations, and are the resolutions and corrective as	s and resolve the report findings and ctions documented? [68.81(e)]	ΠN	□ N/A
7. Was the report reviewed with all affected personnel whose findings including contract employees where applicable? [6]	job tasks are relevant to the incident [X]Y	□N	□ N/A
8. Has the owner or operator retained the incident investigation	n reports for five years? [68.81(g)] 区Y	□N	□ N/A
Section D - Employee Participation [68.83]			
1. Has the owner or operator developed a written plan of action employee participation required by this section?[68.83(a)] I during the shift change. During this meeting, the mana changes on the system, any "walking" PMs, any hot we such as training sessions. In addition, the maintenance technicians.	he manager holds safety meetings ger informs the employees about any ork permits, and other announcements	□N	□ N/A
 Has the owner or operator consulted with employees and to development of process hazards analyses and on the development in chemical accident prevention provisi involved in the PHA and compliance audits. 	opment of the other elements of process	□N	□ N/A
Has the owner or operator provided to employees and their hazards analyses and to all other information required to be prevention rule? [68.83(c)]	representatives access to process developed under the chemical accident	□N	□ N/A
Section E - Hot Work Permit [68.85]			
Has the owner or operator issued a hot work permit for each near a covered process? [68.85(a)]	n hot work operation conducted on or 区Y	□N	□ N/A
Does the permit document that the fire prevention and prote 1910.252(a) have been implemented prior to beginning the	not work operations? [68.85(b)]	ΠN	□ N/A
Does the permit indicate the date(s) authorized for hot work to be performed? [68.85(b]	and the object(s) upon which hot work is	□N	□ N/A
4. Are the permits being kept on file until completion of the hot are kept on file for 30-60 days.	work operations? [68.85(b)] Permits	□N	□ N/A
Section F - Contractors [68.87]			
Has the owner or operator obtained and evaluated information operator's safety performance and programs when selecting Contractors are required to complete a form regarding to the complete and the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete as form regarding to the complete are required to complete and the complete are required to complete as form required to complete and the complete are required to complete and the compl	a contractor? [68.87(b)(1)]	□N	□ N/A

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	MARS headquarters select the contractors based on their experience, their safety record, and insurance.				
2.	Informed contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process? [68.87(b)(2)] The contractors watch a safety video and receive a safety card before they begin any work at the facility. The safety card is good for a year.	C	ďΥ	ΠN	□ N/.
3.	Explained to the contract owner or operator the applicable provisions of the emergency response or the emergency action program? [68.87(b)(3)] Including the call down list, evacuation plan, and the alarm system.	[3	ZIY	ΠN	□ N/ <i>i</i>
4.	Developed and implemented safe work practices consistent with §68.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in the covered process areas? [68.87(b)(4)]	Σ	ďΥ	□N	□ N//
Se	ction G - Emergency Response [68.90 - 68.95]				
De Co	eveloped and implemented an emergency response program as provided in 40 CFR 68.90-68.95?	JS D	M	□ U	□ N/A
1.	Is the facility designated as a "first responder" in case of an accidental release of regulated substances"		2	IY 🗆	N 🗆 N/A
=	1.a. If the facility is not a first responder:				
	1.a.(1) For stationary sources with any regulated substances held in a process above threshold quantities, is the source included in the community emergency response plan developed under 42 U.S.C. 11003? [68.90(b)(1)]	C	ΙΥ	□N	□ N/A
	1.a.(2) For stationary sources with only regulated flammable substances held in a process above threshold quantities, has the owner or operator coordinated response actions with the local fire department? [68.90(b)(2)]	<u>,</u> (ΣY	ΠN	□N/A
	1.a.(3) Are appropriate mechanisms in place to notify emergency responders when there is need for a response? [68.90(b)(3)]		ΙΥ	ΠN	□ N/A
2.	An emergency response plan which is maintained at the stationary source and contains the following? [68.95(a)(1)] a. Procedures for informing the public and local emergency response agencies about accidental releases? [68.95(a)(1)(i)] b. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures? [68.95(a)(1)(ii)] c. Procedures and measures for emergency response after an accidental release of a regulated substance? [68.95(a)(1)(iii)]	X	Y	□N	X N/A
3.	Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance? [68.95(a)(2)]	X	Υ	□N	□ N/A
4.	Training for all employees in relevant procedures? [68.95(a)(3)]	X	Ϋ́	□N	□ N/A
5.	Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes? [68.95(a)(4)]	(X	ΊΥ	ΠN	□N/A
6.	Did the owner or operator use a written plan that complies with other Federal contingency plan	۵,	Y	□N	X N/A

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regulations or is consistent with the approach in the National Response Team's Integrated Contingency Plan Guidance ("One Plan")? If so, does the plan include the elements provided in paragraph (a) of 68.95, and also complies with paragraph (c) of 68.95? [68.95(b)]			
7. Has the emergency response plan been coordinated with the community emergency response plan developed under EPCRA? [68.95(c)]	XY	ΠN	□ N/A
Section H - Risk Management Plan [68.190 - 68.195]	:4		
 Has the owner or operator reviewed and updated the RMP and submitted it to EPA [68.190(a)]? Reason for update. Five-year update. [68.190(b)(1)] Within three years of a newly regulated substance listing. [68.190(b)(2)] At the time a new regulated substance is first present in an already regulated process above threshold quantities. [68.190(b)(3)] At the time a regulated substance is first present in a new process above threshold quantities. [68.190(b)(4)] Within six months of a change requiring revised PHA or hazard review. [68.190(b)(5)] Within six months of a change requiring a revised OCA as provided in 68.36. [68.190(b)(6)] Within six months of a change that alters the Program level that applies to any covered process. [68.190(b)(7)] 	XIY	□N	□ N/#
2. If the owner or operator experienced an accidental release that met the five-year accident history reporting criteria (as described at 68.42) subsequent to April 9, 2004, did the owner or operator submit the information required at 68.168, 68.170(j) and 68.175(l) within six months of the release or by the time the RMP was updated as required at 68.190, whichever was earlier. [68.195(a)]	ΟY	□N	⊠ N/A
3. If the emergency contact information required at 68.160(b)(6) has changed since June 21, 2004, did the owner or operator submit corrected information within thirty days of the change? [68.195(b)] The emergency contact changed in April 2008. The facility will submit the name and telephone number for new emergency contact.	ΠY	XIN	□ N/A

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