CONFIDENTIAL

REPORT

(SAMPLE – FOR REFERENCE / TRAINING PURPOSES ONLY)

PROCESS SAFETY MANAGEMENT
OSHA 29 CFR 1910.119
&
RISK MANAGEMENT PROGRAM 3 PREVENTION PROGRAM
EPA 40 CFR PART 68
AUDIT

for

DREYERS GRAND ICE CREAM
TEXAS OPERATIONS CENTER (TXOC)
HOUSTON FACILITY

JULY 24-28, 2000

Prepared by

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PROCESS SAFETY MANAGEMENT
OSHA 29 CFR 1910.119
&
RISK MANAGEMENT PROGRAM 3 PREVENTION PROGRAM
EPA 40 CFR PART 68

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EXECUTIVE SUMMARY

This report summarizes the results of a process safety management (PSM) audit conducted for the Dreyer's Grand Ice Cream Texas Operations Center in Houston, Texas by PSRG Inc. The audit was performed in Houston on July 24-28, 2000.

The objective of the audit was to assess the current status of the Houston facility with respect to OSHA's final PSM regulations published in 29 CFR 1910.119 on February 24, 1992, and with respect to EPA's 40 CFR Part 68, Risk Management Program (RMP) Subpart D (Program 3 Prevention Element). Mr. D. Alex Taylor, Senior Consultant, Process Risk Management, Mr. Robert J. Weber, PE, President, PSRG Inc., and Mr. Russ Williams, Risk & Safety Manager, Dreyer's Grand Ice Cream conducted the audit with participation by key Dreyer's Grand Ice Cream Texas Operations Center (TXOC) personnel. Mr. Jeff Leggett acted as Dreyer's Grand Ice Cream Texas Operations Center's coordinator for the onsite portion of this work.

Each element of the OSHA PSM regulation and EPA's RMP Subpart D (Program 3 Prevention Element) was examined by the use of audit questions derived from OSHA's Instruction CPL 2-2.45A CH-1, "Compliance Guidelines and Enforcement Procedures," and EPA's RMP Subpart E (Emergency Response) along with Subparts A, B, C, and G were examined using audit questions derived from EPA's "Guidance for Auditing Risk Management Plans/Programs Under Clean Air Act 112(r)" EPA 550-899-008. Findings were derived from reviewing documents, observing onsite conditions, and interviewing employees.

This report represents PSRG's estimation of Dreyer's Grand Ice Cream Texas Operations Center's current status with respect to the PSM regulations. As a result of evaluating

equipment, operations, procedures, and records of Dreyer's Grand Ice Cream Texas Operations Center versus the requirements of the PSM/RMP regulations, a total of 70 recommendations are offered for further consideration.

The overall PSM program is approximately 80% complete based on the number of "Yes"," No" and "Partial" answers to the audit questions. The elements, which are furthest from completion, are Mechanical Integrity, Management of Change, Training, and Emergency Planning & Response.

The overall RMP program is approximately 95% complete based on the number of answers to the audit questions indicating compliance. Subpart G (Risk Management Plan) can be completed by adding information to the Risk Management Plan.

1.0 INTRODUCTION

This report summarized the results of a PSM audit conducted for the Dreyer's Grand Ice Cream Texas Operations Center Plant in Houston, Texas by PSRG Inc. The audit was performed in Houston on July 24-28, 2000. The objective of the audit was to determine the level of compliance of existing practices, programs, policies and procedures with respect to the PSM requirements as described in the final Occupational Safety and Health Administration (OSHA) regulations entitled, Process Safety Management of Highly Hazardous Chemicals (29 CFR 1910.119) and in EPA's 40 CFR Part 68 for a Risk Management Program, Program 3 Prevention Program [Subpart D]. The level of compliance with respect to subparts A (General), B (Hazard Assessment), C (Program 2 Prevention Program), E (Emergency Response), and G (Risk Management Plan) of 40 CFR Part 68 was also determined. Note that subpart F (Regulated Substances for Accidental release Prevention) is not an auditable component.

The audit was intended to develop a specific list of recommendations for Dreyer's Grand Ice Cream Texas Operations Center's consideration, aimed at completing the development and implementation of a comprehensive PSM program and Risk Management program. Section 2 of this report describes the scope of the audit. Section 3 discusses the approach taken for conducting the audit. Section 4 summarizes the recommendations, and Section 5 lists the recommendations. A description of the review study technique is included as Appendix A. Suggested program enhancements are included in Appendix B, and the actual audit worksheets are included in Appendix C for the entire Ammonia Refrigeration system at Dreyer's Grand Ice Cream Texas Operations Center.

PSRG has expended its best professional efforts in performing this work. However, it should be noted that this report describes a joint work effort of PSRG and Dreyer's Grand Ice Cream Texas Operations Center personnel using information provided by Dreyer's Grand Ice Cream Texas Operations Center and its personnel. The review was performed

by reviewing documents provided by Dreyer's Grand Ice Cream Texas Operations Center and interviewing its personnel. The answers provided by Dreyer's Grand Ice Cream Texas Operations Center personnel and the documents reviewed were accepted as accurate for the purpose of this review. Consequently, PSRG can accept no liability for any use that Dreyer's Grand Ice Cream Texas Operations Center may make of the information contained herein.

2.0 SCOPE OF REVIEW

The scope of the audit focused on the general applicability and requirements of OSHA's Process Safety Management of Highly Hazardous Chemicals regulation (29 CFR Part 1910.119) and EPA's 40 CFR Part 68 for a Risk Management Program (RMP) Program 3 Prevention Element [Subpart D] as they apply to the Houston Facility's Ammonia Refrigeration System, which contains a covered chemical as defined in the OSHA regulations. The OSHA PSM regulation specifies requirements for the following fourteen (14) process safety elements:

- Employee Participation
- Process Safety Information
- Process Hazard Analysis
- Operating Procedures
- Training
- Contractors
- Pre-startup Safety Review
- Mechanical Integrity
- Hot Work Permit
- Management of Change
- Incident Investigation
- Emergency Planning and Response
- Compliance Audits
- Trade Secrets

Subpart D specifies requirements for the same elements, with the exception of Trade Secrets and Emergency Planning and Response. The scope of the EPA audit also included Emergency Response as contained in Subpart E as well as Subparts A (General), B (Hazard Assessment), C (Program 2 Prevention Program), and G (Risk Management Plan) of 40 CFR Part 68.

The scope did not include independent verification of all the answers provided by the Dreyer's Grand Ice Cream Texas Operations Center personnel nor verification of the accuracy of all the documents reviewed.

3.0 STUDY APPROACH

The onsite PSM audit was conducted at the Houston facility on July 24 – 28, 2000. The review followed the following approach:

1. Plant description and tour of process equipment
2. Staff interviews/discussions
3. Review of records
4. Onsite observations

Mr. D. Alex Taylor, Senior Consultant, Process Risk Management, Mr. Robert J. Weber, PE, President, PSRG Inc., and Mr. Russ Williams, Risk & Safety Manager, Dreyer's Grand Ice Cream conducted the audit with participation by key Dreyer's Grand Ice Cream Texas Operations Center personnel. Mr. Jeff Leggett acted as Dreyer's Grand Ice Cream Texas Operations Center=s coordinator for the onsite portion of this work. The audit team interviewed employees and contractors during the course of this study. They were asked questions concerning the process safety aspects of their jobs.

Field verification of programs was used to determine functionality and effectiveness of the programs. This consisted of spot checks of the following:

- Operating (SOP) procedures
- Maintenance procedures
- Lockout/Tagout procedure
- Confined Space Entry Program
- Hot Work procedure
- Line Breaking procedure
- PHA (HAZOP) report and document system
- Mechanical Integrity Program
- Management of Change Program and documentation
- Pre-startup Safety Review Program and documentation
- Process Safety Information (P&IDs, Equipment files, PSV documentation, Heat and Material Balance, MSDS, Inventory calculations, etc.)

- Employee Participation Program
- Contractor Safety Program
- Training Program and documentation
- Management system (RMP)
- PSM Program
- Risk Management Plan
- Emergency Response Program

The auditors used a compliance audit checklist developed from OSHA Instruction CPL 2-2.45A CH-1 and from EPA's "Guidance for Auditing Risk Management Plans/Programs Under Clean Air Act 112(r)" EPA 550-899-008 as a guide throughout the review. The checklist contains OSHA's PSM regulatory requirements and EPA's RMP regulatory requirements in a question format.

4.0 FINDINGS

Appendix C contains the complete results of the PSM/RMP audit of the Houston facility. The following is a summary of the audit results.

One hundred thirty (130) questions associated with PSM were posed during the audit of the Houston facility. The responses to each question on the checklist are as follows:

"Y"	Indicates full compliance with PSM requirements
"N"	Indicates no or exceptions with PSM requirements
"P"	Indicates partial compliance with PSM requirements
"NA"	Indicates PSM requirement is not applicable

Table 1 contains a breakdown of the questions and answers for each of the PSM elements. The overall PSM program is approximately 80% complete based on the number of "Yes"," No" and "Partial" answers to the audit questions. The elements, which are furthest from completion, are Mechanical Integrity, Management of Change, Training, and Emergency Planning & Response.

Table 1. Breakdown of PSM Audit Questions and Answers

Element	Y	P	N	NA	Total
Employee Participation	2	1	0	0	3
Process Safety Information	4	2	0	0	6
Process Hazard Analysis	13	3	3	1	20
Operating Procedures	6	3	0	0	9
Training	1	2	1	1	5
Contractors	11	3	1	0	15
Pre-startup Safety Review	5	1	0	0	6
Mechanical Integrity	3	6	2	0	11
Hot Work Permit	4	1	0	0	5
Management of Change	3	5	1	0	9
Incident Investigation	8	0	0	0	8
Emergency Planning & Response	11	5	7	1	24
Compliance Audit	0	0	1	6	7
Trade Secrets	2	0	0	0	2
TOTAL	73	32	16	9	130

One hundred thirty-seven (137) questions to indicate compliance or non-compliance with RMP Subsections were posed during the audit of the Houston facility. The response to each question could be either informational in nature or could imply compliance or non-compliance, similar to the responses found in the PSM checklist. These responses have been summarized in Table 2 using the following codes.

"Y"	Indicates full compliance with RMP requirements
"N"	Indicates no or exceptions with RMP requirements
"P"	Indicates partial compliance with RMP requirements
"NA"	Indicates RMP requirement is not applicable

Table 2 contains a breakdown of the questions and answers for each of the RMP subparts. The overall RMP program is approximately 95% complete based on the number of answers to the audit questions indicating compliance. Subpart G (Risk Management Plan) can be completed by adding information to the Risk Management Plan.

Table 2. Breakdown of RMP Audit Questions and Answers

SUBPART	Y	P	N	NA	Total
A - General	10	0	0	12	22
B – Hazard Assessment	41	0	1	34	76
C – Program 2 Prevention Prog.	-	-	-	-	-
D – Program 3 Prevention Prog. Refer to Table 1	-	-	-	-	-
E – Emergency Response	17	0	0	0	17
F – (Not Auditable)	-	-	-	-	-
G – Risk Management Plan	60	3	5	46	114
TOTAL	128	3	6	92	229

5.0 ASSESSMENT RECOMMENDATIONS

As a result of evaluating the equipment, operations, procedures, practices, and records, of the Dreyer's Grand Ice Cream Texas Operations Center Houston Facility versus the requirements of PSM/RMP regulations, recommendations are offered for Dreyer's Grand Ice Cream Texas Operations Center's consideration that address those regulatory requirements. The recommendations are presented below and are made to address the pertinent 29 CFR OSHA 1910.119 and EPA 40 CFR Part 68 issues that surfaced during the assessment.

Table 3. Recommendations

Ref #	PSM Element / Reference #	Recommendation
1	[1910.119(c)(3)]	The Employee Participation procedure should be modified to provide contractor's access to PHAs or other information that has been developed as required by the PSM standard.
2	[1910.119(d)(1)] [1910.1200(g)] [1910.119 (d)(3)(i)]	The Process Safety Information should be modified to address the following: • Include the hazards effects of inadvertent mixing of different materials that could foreseeable occur at TXOC. • Create one Master set of P&IDs that represents the process as being operated. • Provide Electrical Area Classification Drawings for the Ammonia Refrigeration processing area. • Ensure that information on flammability in the MSDS and in the Ammonia Data Book is consistent and correct. • Provide the sizing basis and design calculations for all pressure relief devices.

Ref #	PSM Element / Reference #	Recommendation
3	[1910.119(e)(5)]	Process Hazard Analysis (PHA) procedure should be modified to address: • Establishing a timeframe for recommendation resolution, and establishing who is responsible for resolution and documentation of the recommendations. • Documentation to clearly demonstrate recommendation resolution for each PHA. • Documentation of actions taken for each PHA that will be consistently applied. • Documentation that Actions are completed as soon as possible. • Written schedule for when actions are to be completed. • Communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.
4	[1910.119(f)(1)(iii)] [1910.119(f)(3)] [1910.119(f)(4)]	Operating Procedures should be modified to address: • Quality control for raw materials (Ammonia to be added to the refrigeration system). • Certification of the operating procedures annually by the employer • A written procedure for the safe work practice involving the opening process equipment or piping. • Documentation of annual inspections of the Confined space entry program procedures. • Documentation of annual simulated entrant rescue. • Adding instruction for the Confined Space Entry permit content and adding a copy of the permit to the procedure as indicated in the procedure. • Documentation of annual inspections of respirator equipment. • Establishing the effective date of the Lockout/Tagout system procedure. • Documentation of periodic inspections of the Lockout/Tagout system.

Ref #	PSM Element / Reference #	Recommendation
5	[1910.119(g)(1)(i)] [1910.119(g)(1)(i)] [1910.119(g)(2)]	Training procedures and documentation need to be modified to address: • Documentation to verify that employees and contractors understood the initial and refresher training given. • Documentation that contractors involved in the operation of the ammonia refrigeration process have received all of the initial and refresher training. • Documentation to verify that required training has been provided before being involved in the ammonia refrigeration process. • Documentation to verify consultation has occurred with employees and contractor employees involved in operating the process to determine the appropriate frequency for refresher training.
6	[1910.119(h)(2)(v)] [1910.119(h)(2)(vi)] [1910.119(h)(3)(iii)]	Contractor Safety Program should be modified to address: • Documentation to verify that resident (A)(1) contractors working at TXOC have been evaluated annually. • Documentation to demonstrate that the training given to contractors is equivalent to the training required for direct new hire employees or that the Dreyer's initial and refresher training has been given to contractors. • Maintaining a contract employee injury and illness log related to the contractor's work in process areas. • Documentation that contractor required training was understood.
7	[1910.119(i)(2)]	Pre-startup Safety Review (PSSR) procedure should be modified to address: • Documentation established that allows verification that PHA recommendations have been resolved or implemented before startup of a new facility.

Ref #	PSM Element / Reference #	Recommendation
8	[1910.119(j)(1)] [1910.119(j)(2)] [1910.119(j)(3)] [1910.119(j)(4)(i)] [1910.119(j)(4)(ii)] [1910.119(j)(4)(iii)] [1910.119(j)(4)(iv)] [1910.119(j)(5)]	The Mechanical Integrity Program should be modified to address: • Including a critical PSM process equipment definition and a complete list of covered equipment. • Developing written procedures that address how the on-going integrity of process equipment is maintained. • Documentation to verify that the written procedures that address how the on-going integrity of process equipment is maintained have been implemented. • Documentation of what constitutes acceptable training for the job tasks required of each employee and contractor employee in maintaining the on-going integrity of process equipment and documentation verifying that the training has been given. • Documentation identifying and prioritizing critical equipment for the Ammonia Refrigeration System including documentation to substantiate the exclusion of specific equipment from being classified as critical. • Documentation of which codes, standards, and/or good industry practices are being followed for inspection and testing procedures. • Documentation that the inspection and test frequencies are consistent with the manufacturer's recommendation and good engineering practice (and prior operating experience). • Documentation of each inspection and test that has been performed including all of the following: o Date of the inspection or test? o Name of person performing the procedure? o Serial number or other identifier of equipment on which procedure was performed? o Description of inspection or test performed? o Results of inspection or test? • System and procedure to document the identification and/or correction of operation of equipment outside limits in a safe and timely manner.

Ref #	PSM Element / Reference #	Recommendation
9	[1910.252(a)]	The Hot Work procedure should be modified by: • Documenting the person (not the contractor company) performing hot work.
10	[1910.119(l)(1)] [1910.119(l)(2)(ii)] [1910.119(1)(2)(iii)] [1910.119(1)(2)(iv)] [1910.119(1)(4)] 1910.119(1)(5)]	Management of Change procedure should be modified to address: • The process for addressing changes in raw material in the MOC procedure. • Documentation that all changes, including changes to SOPs and ER plans, have been communicated to those effected by thee change. • Items addressed in PHAs to comply with the EPA RMP Part (offsite consequences). • Documentation that modifications to SOPs have been addressed prior to any change being implemented. • Temporary changes the where necessary time period for the change is addressed prior to any change. • Identification of all pertinent process safety information associated with a change and documenting that the PSI has been reviewed and updated if changed. • Identification of all pertinent procedures associated with a change and documenting that the procedures has been reviewed and updated if changed.
11	[1910.119(n)] [1910.38(a)] [1910.38(a)(5)(i)] [1910.38(a)(5)(ii)] [1910.165(b-e)] [1910.120(a), (p), (q)] [1910.120(q)]	The Emergency Planning and Response procedure should be modified to address: • Updating procedure to eliminate inconsistent and incorrect references to locations such as "Fort Wayne" and to personnel who are no longer part of the organization (e.g., "Denis Baker"). • Posting the building evacuation map showing evacuation routes in the facility.

Ref #	PSM Element / Reference #	Recommendation

- Installing additional wind socks so that at least one can be seen from any point on the ground and roof areas.
- Eliminating reference to items such as flags that may not be in place when required.
- Designating a person/position to be responsible for updating the emergency action plan.
- Documenting verifying that each employee covered by the emergency action plan is initially trained, trained whenever there are changes to the plan, or trained whenever the employees' responsibilities or designated action under the plan changed.
- Documentation verifying that employees, contractors and emergency response coordinators have been trained in their respective responsibilities and functions in case of an emergency.
- Scheduling and documenting emergency shutdown drills.
- Documentation verifying that all training requirements for ERT and HAZMAT team members has been completed.
- Alarms are not distinctive for each purpose of alarm.
- Testing the non-supervised systems (Alarm system) not less than every two months
- Documenting that the alarms are serviced, maintained, and tested by appropriately trained persons.
- Updating the procedure to meet the requirements of 1910.120(a), (p), and (q), or establishing that the requirements have been reviewed and are not applicable.
- Specifying safe distances and places of refuge as part of Emergency Response Plan.
- Eliminating the reference to SCBA equipment that is not readily accessible (locked away with key access to limited persons), and for which no training has been provided, from the Emergency Response Plan.

Ref #	PSM Element / Reference #	Recommendation
12	[1910.119(o)(1)]	Compliance Audit for PSM had not been done for the facility as required by the regulation.
13	[1910.119(p)]	There are no recommendations associated with Trade Secrets.
14	[1910.119(m)	There are no recommendations associated with Incident Investigation.
15	(SUBPART A)	There is Compliance with the provisions of Subpart A with no exceptions.
16	(SUBPART G) [68.10] [68.10(a)(1)] [68.150(a) & (b)] [68.190(a)] [68.155(a)] [68.155(e)] [68.155(f)] [68.155(g)] [68.160(b)(11)] [68.175(k)]	There is general compliance with the provisions of Subpart G with the following exceptions: The RMP should be modified, or actions taken to correct deficiencies. • The June 1999 RMP for Dreyer's Grand Ice Cream did not show the exact postmarked date when the plan was submitted. Verify documentation exists. • Add a brief statement of the Emergency Response Policy to the Executive Summary. • Add a brief statement of the Five-year accident history to the Executive Summary. • Add a brief statement of the Emergency Response Program to the Executive Summary. • Add a brief description of planned changes to improve safety to the Executive Summary. (Note: This requires a statement saying no changes to improve safety are planned, if that is the case.) • State whether the stationary source is subject to 40 CFR Part 355, the Emergency Planning Requirements of the Emergency Planning and Community Right-to-Know. • The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit were given in the RMP; however, the compliance audit documentation,

Ref #	PSM Element / Reference #	Recommendation
		for the date listed for that audit, could not be found on site. Determine what information is correct and modify RMP if documentation cannot be found.
17	(Subpart B) [68.28(b)(2)()]	There is Compliance with the provisions of Subpart B with the following exception: • Release scenarios were not documented to show that vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks, was considered, nor was an explanation provided as to why they do not appear on the list of scenarios analyzed. Document as required.
18	(Subpart C)	Not applicable for RMP Program 3 Prevention Program.
19	(Subpart D)	Analyzed with OSHA PSM.
20	(Subpart F)	Not auditable.

APPENDIX A

Review Study Technique

APPENDIX A

REVIEW STUDY TECHNIQUE

A review involves a number of steps:

1. Defining the study purpose, scope, and objectives
2. Collecting the needed information
3. Conducting a site survey
4. Briefing the study team
5. Conducting the study
6. Analyzing the results
7. Documenting the study
8. Communicating the results
9. Following up on study recommendations

The review method is conducted by posing a series of questions based on information contained in the pre-established checklist. Where appropriate, recommendations to correct deviations are made.

The PSM/RMP audit worksheets (see Appendix C) contain the following information:

QUESTION - Listing of the review questions

ANSWER - Response to the question. A "Y" represents yes, a "N" represents No, A "P" represents Partially Complete, and a "NA" represents Not Applicable. An answer of Not Applicable concerns items that either do not apply to the facility or represent conditions that have not occurred at the facility. Additionally, A "P" represents Partially Complete, where some information is available, but the issue is not entirely addressed.

FINDING - An expansion of the answer; defines level of compliance and identifies exceptions.

REMARKS - Additional information gathered during interviews or records review to validate answers/findings for the question.

RECOMMENDATIONS - A result of evaluating equipment, operations, procedures, and records versus the requirements of the PSM regulations, recommendations are offered for further consideration.

APPENDIX B

Suggested Program Enhancements

APPENDIX B

SUGGESTED PROGRAM ENHANCEMENTS

The following items are submitted to Dreyer's Grand Ice Cream TXOC for consideration as ways to improve or enhance the overall Process Safety Management Program or the Risk Management Plan.

1. The following programs in Dreyer's Grand Ice Cream TXOC PSM Manual need to be reviewed to ensure the documentation is administratively complete:

   - Employee Participation program (Effective date)

2. Indicate in the Dreyer's Grand Ice Cream TXOC PSM Manual that the maximum intended inventory calculations are included in Dreyer's Grand Ice Cream TXOC Risk Management Plan Manual.

3. Location of master documents should be indicated the Dreyer's Grand Ice Cream TXOC PSM Manual if they are not part of that Manual.

4. The MOC procedure states that if a process hazard analysis is determined to be necessary for new projects or modifications, an appropriate method (HAZOP) is to be used. Note: This may be in conflict with paragraph 2.1 in the Process Hazard Analysis Program section of the Dreyer's Grand Ice Cream TXOC PSM Manual.

5. Specify a consistent approach for recording information in the PHAs. TXOC should specify minimum-recording requirements, such as use of a risk matrix for all consequence scenarios identified, to ensure all PHAs will satisfy regulatory requirements, which will also benefit revalidation efforts

6. Identify a timeframe for the issuance of the PHA Compliance report to ensure that all recommendations must be brought to conclusion as soon as possible.

7. For PHAs conducted for new facilities, the PSSR procedures require all recommendations be resolved prior to startup. Documentation should be established to verify completion of this activity. Similar requirement should be established in PSSRs for Modified Facilities.

8. Develop clear documentation of each recommendation's completion by adding an "Estimated Completion Date" and "Actual Completion Date" to a recommendation-tracking form, such as the Process Hazard Analysis Log. Establish a system to obtain periodic updates and explain the system in the PHA section of the Dreyer's Grand Ice Cream TXOC PSM Manual.

9. Establish that PHA content is to be discussed with all effected personnel and document that these discussions have taken place. Treat this in a similar manner as documentation of training given for each individual.

10. Develop a formal PHA Revalidation procedure so all components will be in place before the revalidation is required. This will ensure that it will take a minimum effort to properly revalidate the PHA.

11. The Dreyer's Grand Ice Cream TXOC PSM Manual Operating Procedures section should address annual certification, the procedure that describes the generation, control, or revision of the SOPs, and the process for review of the procedures as indicated in the Employee Participation section.

12. Actions indicated in one section of the Dreyer's Grand Ice Cream TXOC PSM Manual should be consistently presented in all related sections.

13. Add the date that an employee or contractor assumed responsibility for a specific position involving the Ammonia Refrigeration process as part of each employee training record.

14. Training documentation should identify clearly as a minimum that all of the regulator components in the training have been covered. Consider adding that information to the documentation signed by the individuals when they have received the training

15. Add the *Pre*-Job Checklist form referred to in the body of Dreyer's Grand Ice Cream Contractor Management Program to the Appendix as stated.

16. Provide the form to annually evaluative the resident (A)(1) contractors working at TXOC referred to in the body of Dreyer's Grand Ice Cream 's Contractor Management Program in the Appendix to that section as stated.

17. Maintain on site the contract employee OSHA 200 logs for each contractor associated with the Ammonia Refrigeration process.

18. The Process Hazard Analysis Log can be reviewed prior to start-up as part of the PSSR process and updated to reflect recommendation status to show that the recommendations have been resolved or implemented prior to start-up. This process should be explained in the PSSR section of Dreyer's Grand Ice Cream TXOC PSM Manual.

19. Modify the PSSR form to allow a confirmation that modified facilities have meet the requirements of management of change.

20. Modify the Hot Work procedure by including specific information on filling out the Hot Work permit line by line. Also include a copy of the current permit as part of the procedure.

21. Modify the form used for the overview training to clearly show that Hot Work was covered as part of the training.

22. MOC procedure should be revised to cross-reference the PHA procedure in the Dreyer's Grand Ice Cream TXOC PSM Manual instead of creating a unique section on PHA.

23. Consider adding cross-referencing between MOC forms and documentation filed elsewhere to ensure related forms are clearly linked

24. Modify Paragraph 6.0 of the MOC procedure to point to the correct safety review checklist.

25. Consider establishing a single, integrated emergency response plan which addresses all regulatory requirements and/or provide cross-referencing between the multiple documents containing information about emergency planning and response to ensure consistent, accurate information.

26. The Emergency Ammonia Spill Response Plan should refer technicians to Emergency Shutdown Procedure EMERGSD in SOP Manual for taking appropriate measures to control release. EMERGSD should also cross reference Emergency Response Plan.

27. Post Emergency telephone numbers for in-house emergency response coordinators near telephones, employee notice boards, and other conspicuous locations to aid reporting of emergencies.

28. Decontamination of PPE is specified in TXOC-37, "Personal Protective Equipment Procedure", Paragraph XIV, Page 13 of 14. The Emergency Response plan should be modified to cross-reference this procedure.

29. Emergency medical treatment and first aid is addressed; however, information is inconsistent between the written procedure and what is visibly posted. Procedure TXOC-30 specifies Concentra – Occupational Health Clinic will be used for treatment of all injured employees; whereas, a visible bulletin board posting specifies U.S. Healthworks as the clinic to be used. This same bulletin board (located on east wall of main hallway leading to production area, about halfway down) also provides contact information for the local hospital (Memorial Hospital) in case of severe injuries or treatment required. The Procedure and postings should be made consistent.

30. PPE requirements in the Emergency Response Plan should cross reference Dreyers Procedure TXOC-37, "Personal Protective Equipment Procedure".

31. Paragraph 1.4 of the Compliance Audit Procedure should make reference to the Employee participation goal of including at least one maintenance employee as a member of the audit team. Training goals should address obtaining formal Audit training.

32. The RMP prevention program is summarized in Section 4.0 of the June 1999 RMP for Dreyer's Grand Ice Cream with the exception that the summary of the Hot Work program is absent and a summary of Trade Secret program provided instead. Correct the information by summarizing the Hot Work program. Trade Secrets can be eliminated from section 4 if desired.

APPENDIX C

Audit Checklist

CONFIDENTIAL

DREYERS GRAND ICE CREAM

PROCESS SAFETY MANAGEMENT
OSHA 29 CFR 1910.119

RISK MANAGEMENT PROGRAM 3 PREVENTION PROGRAM
EPA 40 CFR PART 68

DREYER'S GRAND ICE CREAM
TEXAS OPERATIONS CENTER (TXOC)
HOUSTON FACILITY

AUDIT DATE - July 24-28 2000

AUDIT CHECKLIST

CHECKLIST BASIS: 1) OSHA COMPLIANCE DIRECTIVE CPL 2-2.45A
2) EPA GUIDANCE FOR AUDITING RISK MANAGEMENT PLANS/PROGRAMS UNDER CLEAN AIR ACT SECTION 112(r) EPA 550-899-008

DREYERS GRAND ICE CREAM.

PROCESS SAFETY MANAGEMENT
RISK MANAGEMENT PROGRAM

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EMPLOYEE PARTICIPATION - 1910.119(c) & 68.83

Process audited: Ammonia Refrigeration

Auditor(s): D. Alex Taylor & Robert J. Weber – PSRG

Subpart D (Prevention Program) compliance. Note: Instructions: This checklist may be used for verification of OSHA PSM & EPA RMP Subpart D (Prevention Program) compliance. Note: EPA RMP Subpart E (Emergency Response) is not included in this checklist. Subparts A, B, C and E are to be audited in the EPA RMP Checklist. (Coding: Y=Yes, N=No, P=Partial, NA=Not Applicable)

The intent of this paragraph is to require employers to involve employees at an elemental level of the PSM program. Minimum requirements for an Employee Participation Program for PSM must include a written plan of action for implementing employee consultation on the development of process hazard analyses and other elements of process hazard management contained within OSHA 29 CFR 1910.119 & EPA 40 CFR PART 68. The employer must also provide ready access to all the information required to be developed under the standard.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with Field Verification of Programs)

1. Does a written program exist regarding employee participation? [1910.119(c)(1)] [68.83(a)] - Y

   The Employee Participation Program is contained in the Dreyer's Grand Ice Cream TXOC PSM Manual. The program calls for employee participation in PSM activities. The PSM Program was completely revised in May 1997. **There is no documentation in the Dreyer's Grand Ice Cream TXOC PSM Manual indicating when the effective date for this program began.**

2. **Does the written program include consultation with employees and their representatives on the conduct and development of process hazard analyses and on the development of other elements in the OSHA PSM standard & the other elements of PSM in the EPA chemical accident prevention provisions? [1910.119(c)(2)] [68.83(b)] - Y**

Employee input is required by the plan when conducting PHAs. Operations & maintenance employees involved in the ammonia refrigeration system are required to be represented in all meetings and/or formal discussions concerning PSM policies and procedures. The PHA Team and/or Emergency Response Team and others review the PSM procedures affecting employees. Employee are encouraged to submit in writing any serious safety concerns involving the PSM program to the Technical Operations Manager for response. Training, Hot Work Permit Program, Management of Change Procedures, Emergency Planning & Response are reviewed with specific employees. Mechanical Integrity inspections and Compliance Audits are to be conducted with maintenance employee involvement. Contractor Qualification Guidelines, Pre-Startup Safety Reviews, Hot Work Permit Program, Management of Change, Incident Investigation Procedures, Emergency Planning & Response, and review of Compliance Audit Procedures require specific management involvement. Operating Procedures shall be reviewed with significant input from maintenance personnel.

3. **Does the written program provide employees (including contractor's employees) and their representatives access to process hazard analyses and all other information developed as required by the PSM standard & the EPA chemical accident prevention rule? [1910.119(c)(3)] [68.83(c)] - P**

All PSM information is available from the Technical Operations Manager or Risk & Safety Manager and is maintained in the TOM's office. The information is available for the employees to take home upon written request. Employee access is governed by the Trade Secrets policy and by the Employee Participation guidelines. ***The written program does not provide contractor's access to PHAs or other information that has been developed as required by the PSM standard.***

PROCESS SAFETY INFORMATION - 1910.119(d) & 68.65

The intent of this paragraph is to provide complete and accurate information concerning the process, which is essential for an effective process safety management program and for conducting process hazard analyses. Therefore in accordance with the schedule set forth in paragraph (e) (1) the employer is required to compile written process safety information on process chemicals (hazards of the regulated substances), process technology, and process equipment before conducting any process hazard analysis.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with Field Verifications of Programs)

1. **Has written process safety information been compiled before conducting any process hazard analysis (PHA)? [1910.119 (d)] [68.65(a)] - Y**

   Written process safety information on the hazards of ammonia, process technology, and process equipment has been compiled. Before conducting the process hazard analysis, the PHA team leader is to ensure the necessary drawings and other reference information is available and up-to-date.

2. **Is information included pertaining to the hazards of the highly hazardous chemicals (regulated substances) used or produced by the process, and does the information include at least:**
   - **Toxicity information?**
   - **Permissible exposure limits?**
   - **Physical data?**
   - **Reactivity data?**
   - **Corrosivity data?**
   - **Thermal and chemical stability data**
   - **Hazardous effects of inadvertent mixing of different materials that could foreseeable occur?**

NOTE: **MSDS's meeting the requirements of 29CFR 1910.1200(g) may be used to the extent they contain the information required. [1910.119(d)(1)] [1910.1200(g)] [68.65(b)] - P**

The above MSDS-type information is available for ammonia, as well as information from the Ammonia Data Book that is part of the PSM material. Information on ammonia contacting various substances is available in both sources mentioned above. ***Hazards effects of inadvertent mixing of different materials that could foreseeable occur is not part of the PSI.***

3. **Is information included concerning the technology of the process, and does it include at least:**
   - **A block flow diagram or simplified process flow diagram?**
   - **Process chemistry?**
   - **Maximum intended inventory?**
   - **Safe upper and lower limits (for such items as temperatures, pressures, flows or compositions)?**
   - **An evaluation of the consequences of deviations? (Where the original technical information no longer exists, it may be developed in conjunction with the PHA.) [1910.119(d)(2)] [68.65(c)(1)] - Y**

The written PSI Information includes block flow diagrams, and process chemistry. **Maximum intended inventory calculations not included in the Dreyer's Grand Ice Cream TXOC PSM Manual (Found in Risk Management Plan).** *Safe upper and lower limits is integrated into the Standard Operating Procedures and the Technical Operating Specifications for each system component. The evaluation of the consequences of deviations has been developed in conjunction with the PHA and actions to be taken to avoid or correct process deviations are part of the Standard Operating Procedures.*

4. **Is information included pertaining to equipment in the process, and does it include at least:**
   - **Materials of construction?**
   - **Piping and instrument diagrams (P&IDs)?**
   - **Electrical classification?**
   - **Relief system design and design basis?**
   - **Ventilation system design?**
   - **Design codes and standards employed?**

- **Material and energy balances for processes built after May 26, 1992?**
- **Safety systems (e.g., interlocks, detection or suppression systems)?**

[1910.119 (d)(3)(i)] [68.65(d)(1)] - P.

Piping material of construction, P&IDs, ventilation system design, material and energy balances, and safety system information is part of the written PSI and included in Dreyer's Grand Ice Cream TXOC PSM Manual or in other locations in the facility. **Location of master documents should be indicated if they are not part of the master PSM Manual.** *Design Codes and Standards information is included with SOPs, on Block Flow diagrams, on Process Flow diagrams, or on P&IDs, and in Mechanical Integrity Equipment files. Safety Systems information is included with SOPs, on Block Flow diagrams, on Process Flow diagrams, or on P&IDs, control software program.* **No one set of P&IDs could be identified as the 'Master set" of P&IDs that represents the process as being operated. At least two sets of P&IDs were located in the control room that contained unique changes to the Ammonia Refrigeration System.**

Although neither the engine room nor the production/processing areas are considered hazardous locations, no Electrical Area Classification Drawings are available specifying the classification.

The information on flammability in the MSDS and in the Ammonia Data Book on flammability is contradictory.

Sizing basis and design calculations could not be located for the relief valves.

5. **Has the employer documented that equipment complies with recognized, generally accepted good engineering practices? (Review the documentation for evidence that compliance with the appropriate consensus standards has been researched.) [1910.119(d)(3)(ii)] [68.65(d)(2)] - Y**

   Applicable codes and standards are used and verified through PHAs. All systems and equipment have been designed, fabricated, or installed in accordance with (at a minimum) IIAR Bulletins 106, 109, 110, 111, 114, 116; ANSA/IIAR 2-1992; ANSI/ASHRAE Standards 15 and 34; ASME/ANSI B31.5; ANSI A13.1-1981; ANSI/NFPA 70-1993.

6. **Has the employer determined and documented that existing equipment designed and constructed in accordance with codes, standards, or practices no longer in general use are designed, maintained, inspected, tested and operating in a safe manner?**

   (Documentation may be through methods such as: documenting successful prior operation procedures; documenting that the equipment is consistent with the appropriate editions of codes and standards; or performing an engineering analysis to determine that the equipment is appropriate for its intended use). [1910.119(d)(3)(iii)] [68.65(d)(3)] - Y

   Existing equipment is designed and constructed in accordance with codes, standards, or practices that are in general use.

The intent of this paragraph is to require the employer to develop a thorough, orderly, systematic approach for identifying, evaluating and controlling processes involving highly hazardous chemicals. Minimum requirements include: (1) Setting a priority order and conducting analyses according to the required schedule; (2) Using an appropriate methodology to determine and evaluate the process hazards; (3) Addressing process hazards, previous incidents with catastrophic potential, engineering and administrative controls applicable to the hazards, consequences of failure of controls, facility siting, human factors, and a qualitative evaluation of possible safety and health effects of failure of on employees; (4) Performing PHA by a team with expertise in engineering and process operations, the process being evaluated, and the PHA methodology used; (5) Establishing a system to promptly address findings and recommendations, assure recommendations are resolved and documented, document action taken, develop a written schedule for completing actions, and communicate actions to operating, maintenance and other employees who work in the process or might be affected by actions; (6) Updating and revalidating PHAs at least every 5 years; and (7) Retaining PHAs and updates for the life of the process.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with Field Verifications of Programs)

1. **Has the employer determined and documented a priority order for conducting initial PHAs based on a rationale that includes at least these factors: [1910.119(e)(1)] [68.67(a)] - NA**
   - **The extent of process hazards**
   - **Number of potentially affected employees**
   - **Age of process**
   - **Operating history?**

   The initial What-If PHA covered the complete plant process; therefore, priority order considerations were not appropriate.

2. **Are the initial PHAs for processes covered by the PSM standard being performed as soon as possible? (Has the analysis identified, evaluated, and controlled the hazards involved in the process?) [1910.119(e)(1)] [68.67(a)] - Y**

The initial PHA (What-If) for the entire plant was conducted January 7-9, 1998 and considered both onsite and offsite impacts. The PHA identified hazards, evaluated the range of safety and heath effects by the use of risk ranking, and controlled the hazards by resolving the recommendations. **A previous owner had operated the facility without a PHA being preformed even though the facility was covered under OSHA CFR 29 1910.119.**

3. **Does the priority schedule for PHAs assure that all initial PHAs will be performed by 05/26/97 and that:**
   - **No less than 25% of the PHAs shall be completed by 05/26/94?**
   - **No less than 50% of the PHAs shall be completed by 05/26/95?**
   - **No less than 75% of the PHAs shall be completed by 05/26/96?**

   (PHAs completed after May 26, 1987 which meet the requirements of this paragraph are acceptable as initial PHAs; they must be updated and revalidated at least every 5 years.) [1910.119(e)(1)] - N

The initial PHA (What-If) for the entire plant was conducted January 7-9, 1998. PHAs for new projects and modifications were completed as necessary per Management of Change (MOC) procedure.

4. **Does the hazard evaluation use one or more of the following PHA methodologies:**
   - **What-if?**
   - **Checklist?**
   - **What-if/checklist?**
   - **Hazard & Operability procedures Study (HAZOP)?**
   - **Failure Mode and Effects Analysis (FMEA)?**
   - **Fault Tree Analysis (FTA)?**
   - **Other appropriate methodology? [1910.119(e)(20] [68.67(b)] - Y**

What-if methodology was appropriate and was used for the initial PHA and for MOC PHAs. The MOC procedure states that if a process hazard analysis is determined to be necessary for new projects or modifications, an appropriate method (HAZOP) is to be used. **Note: This may be in conflict with paragraph 2.1 in the Process Hazard Analysis Program section of the Dreyer's Grand Ice Cream TXOC PSM Manual.**

5. **Does the PHA address the following:**
   - **The hazards of the process? [1910.119(e)(3)] [68.67(c)(1)] - Y**

The initial What-If PHA addressed the hazards of the process. The MOC PHAs addressed the hazards of the process.

- **Previous incidents with likely potential for catastrophic consequences? [1910.119(e)(3)] [68.67(c)(2)] - Y**

Dreyer's Grand Ice Cream TXOC's Houston plant has no history of previous incidents that resulted in catastrophic consequences. The initial What-If study addressed previous incidents that have been experienced at the facility, including those with the likely potential for catastrophic consequences. Previous incidents appear to be addressed adequately in MOC PHAs although it was noted in one study that an incident list was not provided.

- **Consequences of failure of engineering and administrative controls? (For example, potential injury, maximum release of hazardous materials, property damage, etc.) [1910.119(e)(3)] [68.67(c)(4)] - Y**

Consequences of failure of engineering and administrative controls are addressed and adequately in the initial What-If study and in the MOC PHAs.

- **Engineering and administrative controls applicable to the hazards and their interrelationships? (Such controls may include appropriate application of detection methodologies to provide early warning of releases; inventory reduction; substitution of less hazardous materials; protective systems such as deluges, monitors, foams; increased separation distances; modification of the process temperature or pressure; redundancy in instrumentation; etc.) [1910.119(e)(3)] [68.67(c)(3)] - Y**

Engineering and Administrative controls and their interrelationships to the hazards are addressed and adequately documented in the initial What-If and in the MOC PHAs.

- **Facility siting (Stationary source siting)? (Review calculations, charts, and other documents that verify facility siting have been considered. For example, safe distances for locating control rooms may be based on studies of the individual characteristics of equipment involved such as: types of construction of the room, types and quantities of materials, types of reactions and of ignition sources, fire protection facilities, capabilities to respond to explosions, drainage facilities, location of fresh air intakes, etc.) [1910.119(e)(3)] [68.67(c)(5)] - Y**

Facility siting was addressed in the initial What-If PHA. The facility is located primarily inside the processing plant with hazards primarily imposed on personnel working in the facility. These hazards were identified. Some of the piping and equipment is located on the roof with hazards imposed on personnel working on the roof and on the surrounding community. Building design and placement of equipment to minimize exposures have been identified. Facility siting issues are addressed as required in the MOC PHAs.

- **Human factors? (Such factors may include a review of operator/process and operator/equipment interface, the number of tasks operators must perform and the frequency, the evaluation of extended or unusual work schedules, the clarity and simplicity of control displays, automatic instrumentation versus manual procedures, operator feedback, clarity of signs and codes, etc.) [1910.119(e)(3)] [68.67(c)(6)] - Y**

Human factors were addressed and appear to be adequately documented in the initial What-If and in the MOC PHAs.

- **A qualitative evaluation of a range of possible safety and health effects of failure of controls on employees in the workplace? [1910.119(e)(3)] [68.67(c)(7)] - Y**

  Documentation of a qualitative evaluation of a range of possible safety & health effects of failure of controls on employees in the workplace is adequately documented in the initial What-If PHA and in one of the MOC PHAs. **There has been an inconsistent approach in recording information in the PHAs. TXOC could specify minimum-recording requirements, such as use of a risk matrix for all consequence scenarios identified, to ensure all PHAs will satisfy regulatory requirements, which will also benefit revalidation efforts.**

6. **Are the process hazard analyses performed by teams with expertise in engineering and process operations, including at least one employee with experience and knowledge specific to the process being evaluated and one member knowledgeable in the specific PHA methodology used? [1910.119(e)(4)] [68.67(d)] - Y**

   Program is in place. The initial What-If PHA and the MOC PHA teams were composed of appropriate engineering, maintenance and operations personnel per the complexity of the PHA. They were lead by appropriately qualified PHA team leaders.

7. **Has a system been established to promptly address the team's findings and recommendations? [1910.119(e)(5)] [68.67(e)] - Y**

   A written PHA Compliance report is to be issued once the study has been completed that: 1) Identifies

the potential hazards and their causes; 2) Identifies engineering and administrative controls applicable to the hazards and describes their consequences of failure; 3) Documents the recommendations. **No timeframe is given for the issuance of the report.** *All recommendations must be brought to conclusion as soon as possible.*

Has the system been able to?

- **Assure that the recommendations are resolved and documented in a timely manner? - P**

All recommendations must be brought to conclusion as soon as possible. Documentation must be maintained to show current status and/or final resolution to any recommendation. **The Process Hazard Analysis Program section of the Dreyer's Grand Ice Cream TXOC PSM Manual does not establish a timeframe for recommendation resolution, nor does it establish who is responsible for resolution and documentation of the recommendations. There is no clear indication what the meaning is for the dates transcribed along with the described handwritten actions in the "Remarks" column of the Recommended Action Item section, or in the Worksheets section, of the Initial What-If PHA.** *For PHAs conducted for new facilities, the PSSR procedures require all recommendations be resolved prior to startup. Documentation should be established to verify completion of this activity.* **There is no similar requirement in PSSRs for Modified Facilities.** The MOC procedure (paragraph 1.7) requires that recommendations should be addressed during the detailed engineering, procurement and construction phase. Paragraph 8.0 requires the Technical Operations Manager or Maintenance Manager to review the MCFs and that any recommendations generated as a result of PHAs and other activities should be resolved prior to startup, the resolution documented with a description of actions to be taken and a schedule for the implementation along with the name of the individual responsible for follow-up. **One MOC PHA performed in October 1999 has no documentation showing recommendation resolution.**

- **Document actions to be taken? – P**

Actions taken are to be documented on the Process Hazard Analysis Log. **No completed Process Hazard Analysis Logs have been located for the Initial What-if PHA or for the MOC PHAs.** *Hand written entries have been made in the Initial What-If PHA and in one of the MOC PHAs.* **Hand written entries appear in more than one place in the Initial What-If PHA with some entries appearing slightly different for the same recommendation.**

- **Complete actions as soon as possible? - N**

Some actions appear to be completed as soon as possible in the Initial What-If PHA, **but clear documentation of each recommendation's completion does not appear on a recommendation-tracking list, such as the Process Hazard Analysis Log, nor in the PHA report. No system has been defined to obtain periodic updates.** One MOC PHA clearly shows completion of actions as soon as possible.

- **Develop a written schedule of when actions are to be completed? - N**

A written schedule of when actions were to be completed appears to not be completely documented in the Initial What-If PHA and in the MOC PHAs as a clearly defined estimated completion date is not shown. Some actions do contain dates for estimated completion.

- **Communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions? - P**

The Process Hazard Analysis Program section of the Dreyer's Grand Ice Cream TXOC PSM Manual

requires that operating, maintenance, and other employees whose work assignments are in the process and who may be affected by the recommendations or actions be notified. **No records could be located to show that the Initial What-If PHA or the MOC PHAs were discussed with them.** The PSSR Form indicates when training has been provided if a procedure has been changed.

8. **Are the PHAs updated and revalidated at least every five years by a qualified team meeting the requirements in paragraph (e) (4), to assure that the process hazard analysis is consistent with the current process? [1910.119(e)(6)] [68.67(f)] - Y**

No PHA updates and reevaluations are currently due. The Initial What-If PHA for this facility is within the 5-year update/revalidation requirement and is due for revalidation January 2003. **Revalidation Procedure is not documented**; however the need to revalidate is acknowledged in the PSM manual.

9. **Are all initial PHAs, updates or revalidation's, and documented resolutions of recommendations, kept for the life of the process? [1910.119(e)(7)] [68.67(g)] - Y**

The initial PHA, MOC PHAs, and documented resolutions of recommendation are to be kept for the life of the process. Records are currently being maintained. No revalidation PHAs have been performed.

OPERATING PROCEDURES - 1910.119(f) & 68.69

The intent of this paragraph is to provide clear instruction for conducting activities involved in covered processes that are consistent with the process safety information. The operating procedures must address steps for each operating phase, operating limits, safety and health consideration, and safety systems and their functions.

VERIFICATION OF PROGRAM ELEMENTS -
(Records reviewed with Field Verifications of Programs)

1. **Do written operating procedures exist for each covered process? Do the procedures provide clear instructions for conducting activities safely? [1910.119(f)(1)(i)] [68.69(a)] - Y**

   Written operating procedures for the ammonia refrigeration system are contained in notebooks adjacent to the operator control console. The procedures provide clear instructions for conducting activities safely and are consistent with the safety information.

2. **Do the operating instructions address, as a minimum, steps for each operating phase, including: [1910.119(f)(1)(i)] [68.69(a)(1)] - Y**

   - **Initial start-up?**
   - **Normal operation?**
   - **Temporary operations?**
   - **Emergency shutdowns?**
   - **Conditions requiring emergency shutdown?**
   - **Assignment of shutdown responsibility to qualified operators?**
   - **Emergency operations?**
   - **Normal shutdown?**
   - **Start-ups following a turnaround or emergency shutdown?**

   The operating instructions address all steps for the various operating phases. Procedures cover normal operation involving the Frick Refrigerated Engineered Control System, normal shutdown,

emergency operations, emergency shutdown, cold start-up, start-up after T/A or emergency, ammonia release procedure, temporary operations (there are no recognized temporary operations), ammonia charging, and leak test.

3. **Do the operating procedures include operating limits that outline consequences of process deviation and steps required to correct or avoid deviations? [1910.119(f)(1)(ii)] [68.69(a)(2)] - Y**

A Frick Refrigeration Engineered Control System controls the Dreyer's Grand Ice Cream plant. The instant availability of operating limits for flow, pressure, temperature, and fluid level are inherent to the Frick Refrigerated Engineered Control System. Alarms alert the operator as operating conditions change. This information is available in the Frick Refrigerated Engineered Control System Manual that is part of the Dreyer's Grand Ice Cream Standard Operating Procedures Manual.

4. **Have safety and health considerations been included in the operating procedures? Do they include at a minimum: [1910.119(f)(1)(iii)] [68.69(a)(3)] - P**

- **Properties of, and hazards presented by, chemicals used in the process?**
- **Precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment?**
- **Control measures to be taken if physical contact or airborne exposure occurs?**
- **Quality control for raw materials and control of hazardous chemical inventory levels?**
- **Any special or unique hazards?**

Health and Safety considerations are included in the Dreyer's Grand Ice Cream Standard Operating Procedures Manual. They include properties and hazards of ammonia; precautions to prevent exposure that includes engineering and administrative controls and PPE; control measures to be taken if physical contact or airborne expose occurs; and special and unique hazards. **Quality control**

of ammonia could not be located in the operating procedure or in other related documents. The ammonia inventory is set by the system design and there are no controls in place or required to control the inventory in the system to a lesser value. Acetylene is the only other chemical on site, and it is not used in the ammonia refrigeration process. The number of 150-pound cylinders on site controls acetylene inventory.

5. **Are safety systems and their functions included in the operating procedures? [1910.119(f)(iv)] [68.69(a)(4)] - Y**

All safety systems, including the Emergency Shut Down Switches, Instrumentation, Relief Header, Ventilation System, Ammonia Detector System, Fire Control Box, Machine Guarding, and Pressure Relief Valves, are all included in the Dreyer's Grand Ice Cream Standard Operating Procedures Manual.

6. **Are the operating instructions consistent with the process safety information? [1910.119(f)(1)] [68.69(a)] - Y**

The procedures and instructions are clear for conducting activities safely and are consistent with the process safety information.

7. **Are operating procedures readily accessible to employees who work in or maintain a process? [1910.119(f)(2)] [68.69(b)] - Y**

All operating procedures are available in the control room and are kept in files folders for use by the operators when required. The master set is available in the Technical Operations Manager's office.

8. **Are operating procedures reviewed as often as necessary to assure that they reflect current operating practice? Are they certified annually by the employer that they are current and accurate? Do they reflect current operating practices that have resulted from changes in: [1910.119(f)(3)] [68.69(c)] - P**
   - **Process chemicals?**
   - **Technology?**
   - **Equipment?**
   - **Facilities?**

   Operating Procedures are the responsibility of the operations department updated as necessary by Plant Manager and Safety Coordinator. Some operating procedures have been revised since start-up; however, most operating procedures are the originals. ***Records cannot be located to show that Operating procedures have been certified annually****, but they do reflect current operating practices.* **The Dreyer's Grand Ice Cream TXOC PSM Manual Operating Procedures section does not address annual certification, the procedure that describes the generation, control, or revision of the SOPs, or the process for review of the procedures as indicated in the Employee Participation section.** *Employee interviews confirmed that there is a procedure for revision of the SOPs and records review confirmed the system to be in place. Records confirm that meetings were held on SOPs;* **however, the meeting records contain no agenda or purpose.**

9. **Have safe work practices been developed and implemented for employees and contractors to control hazards during operations such as: [1910.119(f)(4)] [68.69(d)] - P**

   - **Lockout/Tagout?**
   - **Confined space entry?**
   - **Opening process equipment or piping?**
   - **Control over entrance into a facility by maintenance, contractor, laboratory or other support personnel?**

Lockout/Tagout, Confined space entry, and Electrical Safety Practices have been developed and are contained in the Dreyer's Grand Ice Cream TXOC Safety Manual the practices are being implemented. Opening process equipment or piping program is in place with permits being used; **however, documentation of the program could not be found in the *Dreyer's Grand Ice Cream TXOC* Safety Manual or PSM Manual. Documentation of annual inspections of the Confined space entry program procedures could not be located. Documentation of annual simulated entrant rescue could not be located. Permits on file have been filled out in an inconsistent/ incomplete/ erroneous manner, and instruction on content to be entered on the permit is not complete in the procedure. A copy of the current permit could not be found in the procedure. Documentation of annual inspections of respirator equipment could not be located. Lockout/Tagout system procedure shows no effective date. Documentation of periodic inspections of the Lockout/Tagout system could not be found.**

The intent of this paragraph helps employees and contractor employees understand the nature and causes of problems arising from process operations, and increases employee awareness with respect to the hazards particular to a process. An effective training program significantly reduces the number and severity of incidents arising from process operations, and can be instrumental in preventing small problems from leading to a catastrophic release. Minimum requirements for an effective training program include: Initial Training, Refresher Training and Documentation.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with Field Verifications of Programs)

1. **For employees and contractor employees involved in operating a process do initial and refresher-training records exist? Do the records contain the identity of the employee, the date of the training, and the means used to verify that the employee understood the training? [1910.119(g)(1)(i)] [68.71(a)(1)] [68.71(c)] - P**

   Initial training and yearly refresher training records exist for all employees operating the process. The records document the required elements. **The training documentation could not be used to verify that all of the minimum subject material has been included in the training. Means to verify that the employee understood the training is not documented for all training. Documentation cannot be located to show that contractors involved in the operation of the ammonia refrigeration process have received all of the initial and refresher training.**

2. **Has each employee and contractor employee been trained before being involved in a newly assigned process (except employees involved in operating a process prior to 05/26/92)? [1910.119(g)(1)(i)] [68.71(a)(1)] - N**

   Dreyer's Grand Ice Cream has no new processes for which employees can be assigned since the original start-up; however, for new employees the training must be completed before being assigned to the Ammonia refrigeration process. **Records could not be found to clearly show when the employee had assumed responsibility for a specific position involving the Ammonia**

refrigeration process so that the training records could verify the required training has been provided before assuming that position. Documentation cannot be located to show that contractors involved in the operation of the ammonia refrigeration process have received all of the initial and refresher training before assuming that position.

3. **If initial training has not been given to employees and contractor employees involved in operating a process prior to 05/26/92, is there written certification that they have the required knowledge, skills and abilities to safely carry out the duties and responsibilities specified in the operating procedures? [1910.119(g)(1)(ii)] [68.71(a)(1)] - NA**

   This requirement is not applicable to Dreyer's Grand Ice Cream TXOC.

4. **Has each employee and contractor employee involved in operating a process been trained in an overview of the process and the operating procedures including: [1910.119(g)(1)(i)] [68.71(a)(1)] - Y**
   - **Steps for each operating phase?**
     Initial startup, normal operations, temporary operations, emergency shutdown, emergency operations, normal shutdown, and startup following a turnaround or emergency shutdown
   - **Operating limits?**
   - **Consequences of deviations and steps required to avoid deviations?**
   - **Safety and health considerations?**
     Properties and hazards of chemicals used and precautions for preventing exposure
   - **Safety systems and their functions?**

   Documentation exists to show that both contractors and employees received training in an overview of the process and the operating procedures. **Training documentation cannot verify that all operating procedure elements required above were part of the training;** *however, interviews have verified that the training did cover all elements.*

5. **Has the employer consulted with employees and contractor employees involved in operating the process to determine the appropriate frequency for refresher training? Is the frequency at least once every 3 years? [1910.119(g)(2)] [68.71(b)] - P**

The Employee Participation section of the PSM manual states that training programs and needs for refresher training should be reviewed with affected Resources and employees; **however, the Training section of the PSM manual does not address this issue. Documentation cannot be found to verify that employees have been consulted regarding training frequency.** *Comprehensive refresher training is to be conducted every three years. For current employees, the comprehensive Refresher course to be conducted every three years is not applicable as their dates of hire are in July 1998.*

The intent of this paragraph is to require employers who use contractors to perform work in and around processes that involve highly hazardous chemicals to establish a screening process so that they hire and use contractors who accomplish the desired job tasks without compromising the safety and health of employees at a facility. The contractor must assure that contract employees are trained on performing the job safely, of the hazards related to the job, and applicable provisions of the emergency action plan.

NOTE: The term *contractor* includes *subcontractors.*

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed - Employer's and Contractor's Program)

Employer Responsibilities:

1. **Does the program include all contractor activities that have the potential for affecting process safety, including -- but not limited to -- contractors performing maintenance or repair turnaround, major renovation or specialty work on or adjacent to covered processes?**

   (Contractors performing incidental services which do not influence process safety such as janitorial work, food and drink services, laundry, delivery, and other supply services need not be included. However, contractors performing construction, demolition, equipment installation, and other work that may affect the safety of a covered process should be included.) [1910.119(h)(l)] - Y

   Dreyer's Grand Ice Cream 's Contractor Management Program addresses the entire requirements, and interviews with contractors and employees have confirmed the program's scope of coverage.

2. **Is the information regarding the contractor's safety performance and programs obtained and evaluated for selection of contractors? [1910.119 (h)(2)(i)] [68.87(b) (1)] - Y**

   Information regarding contractor's safety performance was obtained using a Prequalification

Evaluation Form and/or a Qualification Questionnaire and evaluated as part of the selection process.

3. **Are the contract employers informed, prior to the initiation of the contractors' work at the site, of the known potential fire, explosion, or toxic release hazards related to the contractors' work and the processes? [1910.119(h)(2)(ii)] [68.87(b)(2)] - Y**

Interviews of contractors and employees as well as a records review has substantiated that the ammonia hazard information is conveyed to the contractor in several ways prior to the initiation of the contractors work. The overview of the process provides basic ammonia hazard information, and if a job is to be started, the Dreyer's Project Leader must conduct a pre-job conference where the nature of the hazard or special safety and environmental rules are covered. **Pre-Job Checklist form referred to in the body of Dreyer's Grand Ice Cream 's Contractor Management Program could not be located in the Appendix as stated.**

4. **Are contract employers informed, prior to the initiation of employees the contractors' work at the site, of the applicable provisions of the emergency action plan required by 1910.119(n)? [1910.119(h)(2)(iii)] [68.87(b)(2)] - Y**

Interviews of contractors and employees as well as a records review has substantiated that the applicable provisions of the emergency action plan is conveyed to the contractor in several ways prior to the initiation of the contractors work. The overview of the process provides basic emergency action plan information, and if a job is to be started, the emergency action plan may be discussed as part of the pre-job conference.

5. **Have safe work practices to control the entrance, presence and exit of contract employers and contract employees in covered process areas been developed and implemented? [1910.119(h)(2)(iv)][1910.119(f)(4)] [68.67(b)(4)] - Y**

A procedure exists to control the entrance, presence and exit of contractor employers and contractor employees. Contractors must sign-in before access to the operating areas and sign-out when leaving. A Visitor, Vendor, Contractor Log is maintained in the front lobby area. Other provisions are listed and have been documented by records review and interviews to be enforced.

6. **Are contract employers periodically evaluated for their performance in fulfilling their obligations to: [1910.119(h)(2)(v)] - P**
   - **Assure their employees are trained in safe work practices needed to perform the job?**
   - **Assure their employees are instructed in the known potential fire, explosion, or toxic release hazards related to the job and the applicable provisions of the emergency action plan?**
   - **Document the required training and the means to verify their employees have understood the training?**
   - **Assure their employees follow the facility safety rules and work practices?**
   - **Advise the employer of unique hazards presented by the contractor's work?**

Personnel interviews have confirmed that contractors' performance is evaluated periodically on an informal basis. **Documentation could not be located to demonstrate that the resident (A)(1) contractors working at TXOC have been evaluated annually. The form for such evaluation referred to in the body of Dreyer's Grand Ice Cream 's Contractor Management Program could not be located in the Appendix as stated.**

7. **Has the host employer ensured, through periodic evaluations, that the training provided to contractor employees by the contractor employer is equivalent to the training required for direct hire employees? [1910.119(h)(2)(v)] - P**

Training has been documented that has been provided to the contractor employee and it is from a recognized source for safety training; **however, documentation could not be found to demonstrate that the training was equivalent to the training required for direct new hire employees nor could documentation be found that the Dreyer's initial and refresher training had been given to contractors.**

8. **If the employer has identified deficiencies in the performance of contract employers, what action has the employer taken to correct the deficiencies? [1910.119(h)(2)(v)] - Y**

Any identified safety deficiencies of the contractor employees have been adequately addressed. Dreyer's Grand Ice Cream 's Contractor Management Program contains instructions on handling violations of safety rules and regulations. Interviews have confirmed that the program has been enforced and contractor employees have been removed from the job.

9. **Does the employer maintain a contract employee injury and illness log related to the contractor's work in process areas? [1910.119(h)(2)(vi)] - N**

Documentation could not be found to verify that the contract employee OSHA 200 log is being maintained on site.

Contractor Responsibilities:

10. **Are all contractor trained in the work practices necessary to perform their jobs safely? [1910.119(h)(3)(i)] - Y**

Documentation that contract employees are trained in the work practices necessary to perform their job safely does exist.

11. **Is each contract employee instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the processes and applicable provisions of the emergency action plan? [1910.119(h)(3)(ii)]–Y**

Dreyer's Grand Ice Cream provides this training in the contractor safety orientation program.

12. **Is there documentation that each contract employee has received and understands the required training? [1910.119(h)(3)(iii)] - N**

Documentation of contractor safety orientation could not be found to verify that the training was understood.

13. **Do the contract employee training records contain the following: [1910.119(h)(3)(iii)] - Y**
    - **The identify of the employee?**
    - **The date of the training?**
    - **The means used to verify that the training was understood?**

The above items are documented in the contractor orientation training records.

14. **Are there means to assure that contract employees follow the safety rules of the facility, including safe work practices required in .119(f)(4)? [1910.119(h)(3)(iv) and .119(f)(4)] - Y**

The means to assure contract employees follow the safety rules and work practices are through informal supervision.

15. **Is the employer advised of any unique hazards presented by the contract employer's work or any hazards found by the contract employer's work? [1910.119(h)(3)(v)] - Y**

Dreyer's Grand Ice Cream 's contractor safety rules include a provision for notification of hazards identified by the contractor, and interviews with contractors have verified that this is expected.

The intent of this paragraph is to make sure that, for new facilities and for modified facilities when the modification necessitates a change to process safety information, certain important considerations are addressed before any highly hazardous chemicals are introduced into the process. Minimum requirements include that the pre-startup safety review confirm the following: construction and equipment is in accordance with design specifications; safety, operating, maintenance, and emergency procedures are in place and adequate; for new facilities, a PHA has been performed and recommendations resolved or implemented; modified facilities meet the requirements of management of change; and training of each employee involved in the process has been completed.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field/verification of programs)

1. **Has a pre-startup safety review been performed for all new facilities (stationary sources) and for modified facilities (stationary sources) when the modification is significant enough to require a change in process safety information? [1910.119(i)(1)] [68.77(a)] - Y**

   A records check and interviews verify that this program is in place and functioning well. PSSRs are performed on all new and modified facilities.

2. **Do pre-startup safety reviews confirm that prior to the introduction of highly hazardous chemicals to a process: [1910.119(i)(2)] [68.77(b)(1)] [68.77(b)(2)] - Y**
   - **Construction and equipment is in accordance with design specifications? - Y**

   The PSSR checklist includes a question covering this provision.

   - **Safety, operating, maintenance and emergency procedures are in place and adequate? - Y**

   PSSR checklist includes questions about SOPs safety, maintenance and emergency procedures being in place and adequate

3. **Do pre-startup safety reviews confirm that prior to the introduction of highly hazardous chemicals to a process: [1910.119(i)(2)] [68.77(b)(3)] [68.77(b)(4)] - P**
   - **For new facilities (stationary sources), a PHA has been performed and recommendations resolved or implemented before startup? - P**

For PHAs conducted for new facilities, the PSSR procedures require all recommendations be resolved prior to startup. **Documentation should be established to verify completion of this activity. There is no similar requirement in PSSRs for Modified Facilities.** The MOC procedure (paragraph1.7) requires that recommendations should be addressed during the detailed engineering, procurement and construction phase. Paragraph 8.0 requires that the Technical Operations Manager or Maintenance Manager reviews the MCFs and that any recommendations generated as a result of PHAs and other activities should be resolved prior to startup, the resolution documented with a description of actions to be taken and a schedule for the implementation along with the name of the individual responsible for follow-up. **One MOC PHA performed in October 1999 has no documentation showing recommendation resolution.**

- **Modified facilities meet requirements of management of change? - Y**

Modified facilities have met the requirements of management of change. **However, PSSR does not document or confirm that this requirement has been fulfilled.**

- **Training of each employee involved in operating the process has been completed? - Y**

The PSSR checklist includes a question regarding the completion of training for employees involved in operating the process, maintaining the process, and in emergency response.

MECHANICAL INTEGRITY - 1910.119(j) & 68.73

The intent of this paragraph is to assure that equipment used to process, store, or handle highly hazardous chemicals is designed, constructed, installed, and maintained to minimize the risk of releases of such chemicals. This requires that a mechanical integrity program be in place to assure the continued integrity of process equipment. The elements of a mechanical integrity program include the identification and categorization of equipment and instrumentation, development of written inspection and testing, correction of deficiencies in equipment that are outside acceptable limits defined by the process safety information, and development of a quality assurance program.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field/verification of programs)

1. **Does the written mechanical integrity program include? [1910.119(j)(1)] [68.73(a)] - P**

   - **Pressure vessels and storage tanks**
   - **Piping systems and components such as valves**
   - **Relief and vent systems and devices**
   - **Emergency shutdown systems**
   - **Controls (including monitoring devices and sensors, alarms and interlocks)**
   - **Pumps**

   Dreyer's Grand Ice Cream has a written Mechanical Integrity Program in the TXOC PSM Program Manual. The plant's written mechanical integrity program covers the above equipment. **However, the plant has not developed a critical PSM process equipment definition or a clear, complete list of covered equipment. The equipment list in the PSM Manual under M.I. does not include Emergency Shutdown Systems, Controls (such as monitoring devices and sensors, alarms, and interlocks), and Relief and Vent Systems and Devices.** *A list of Pressure Relief Valves, and other Safety Systems and their Functions, is provided in the SOP Manual (October 1999), Tab 14. An Ammonia Refrigeration Equipment List, containing major equipment, is provided in the Equipment*

Repair Procedures Manual, November 1999 (Tab 4).

2. **Are there written procedures to maintain the on-going integrity of process equipment? Does the documentation indicate the procedures have been implemented? [1910.119(j)(2)] [68.73(b)] - P**

Documentation is incomplete. A written maintenance schedule exists for major equipment (See M.I. Program, Table 8-1); however, there are no detailed procedures specific to the equipment installed or verification that the schedule is being adhered to. Written procedures for vessels and tanks, relief valves, piping systems, shutdown systems, and pumps/compressors do not appear to exist or are not easily accessible.

3. **Has training been provided to each employee and contractor employee involved in maintaining the on-going integrity of process equipment in the following: [1910.119(j)(3)] [68.73(c)] - P**
   - **An overview of the process and its hazards?**
   - **Procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner?**

(Review certification documents for employees doing non-destructive tests, welding on pressure vessels, etc., where these certifications are required.)

Training in an overview of the process and procedures applicable to employee's job tasks appears to be mostly on-the-job. There is no formal training program for contractors and/or employees who are new to the process. Training is not well documented. Certification documents for those doing nondestructive tests, instrument calibration, welding on pressure vessels, etc. is not available.

4. **Are inspections and tests performed on each item of process equipment included in the program? [1910.119(j)(4)(i)] [68.73(d)(1)] - P**

A maintenance, inspection, and testing program have been established at the Dreyers TXOC facility. Under this program, each major piece of equipment utilized in the ammonia refrigeration system has a designated inspection, testing and maintenance schedule as specified in Table 8-1 ("Equipment Maintenance Interval") of the M.I. Program. **No documentation could be found to substantiate the exclusion of specific equipment from testing and inspections. Documentation of test results is incomplete or non-existent.**

Table 8-1 does not include Relief Valves, Emergency Shutdown Systems, and Controls.

5. **Do inspection and testing procedures follow good engineering practices? [1910.119(j)(4)(ii)] [68.73(d)(2)] - P**

General inspection requirements and intervals are provided in Table 8-1 of the M.I. Program. However, detailed Inspection and test procedures are not available. The M.I. Program indicates that maintenance, inspection and testing procedures follow recognized and generally accepted good engineering practices, and that the frequency of inspections and tests of process equipment is consistent with manufacturers recommendations and good engineering practices. **However, the supporting data could not be found to show which codes, standards, and/or good industry practices are being followed.**

The International Institute of Ammonia Refrigeration (IIAR) is generally recognized by the ammonia refrigeration industry as a reliable source of good practices. **Documentation cannot be found to confirm whether IIAR is being referenced for inspections and tests.**

IIAR Bulletin 110 provides recommended basic guidelines for the startup, inspection and maintenance of ammonia mechanical refrigerating systems, including compressors, pressure vessels and heat

exchangers, ammonia pumps, valves and sensing devices, piping, and motors and drivers.

IIAR Bulletin 109 presents minimum safety criteria and associated Safety Inspection Checklists recommended for safe ammonia refrigeration systems. Paragraph 5.2 of this Bulletin specifies that each owner should ensure an ammonia system safety check is conducted annually and a more thorough inspection should be conducted every five years. **Documentation could not be found to show that any Bulletin 109 inspections are being performed at the Dreyer's TXOC facility.**

Experience in ammonia refrigeration plants indicates that the following issues related to inspection and testing can be important:

- *Inspection of pressure vessels. IIAR Bulletin 109 provides information on inspection for stress corrosion cracking. It is not clear that this Bulletin has been considered in I&T procedures.*

- *Periodic replacement or preventative maintenance of pressure relief valves. IIAR Bulletin 109 recommends replacement of PRVs every five years. ASME, ANSI/ASHRAE 15, and state and local codes may also provide guidance.*

- *Periodic inspection and calibration of liquid level, temperature and pressure instruments, switches, and shutdown devices determined to have safety implications.*

- *Periodic inspection of major powered equipment, such as compressors, pumps, fans, bearings, couplings, shaft seals, mountings, etc., for vibration or incipient mechanical failure.*

- *Consideration of spare parts. Replacement parts must be appropriate for refrigeration service*

6. **Are inspection and test frequencies consistent with the manufacturer's recommendation and good engineering practice (and prior operating experience)? Are inspections and tests performed more frequently if determined necessary by operating experience? [1910.119(j)(4)(iii)] [68.73(d)(3)] - P**

Minimum inspection intervals are based on the manufacturers recommendations or work history and experience. Paragraph 3.2 of the M.I. Program allows for more frequent inspections and tests if determined to be necessary by the Technical Operations Manager or Maintenance Manager. This is based on work history and experience. **Documentation could not be found to show that the inspection intervals specified in Table 8-1 are being met. No forms or history of inspection and testing could be produced,** *although it is apparent based on interviews that inspections and tests are being performed.*

7. **Is there documentation of each inspection and test that has been performed including all of the following: [1910.119(j)(4)(iv)] [68.73(d)(4)] - N**
   - **Date of the inspection or test?**
   - **Name of person performing the procedure?**
   - **Serial number or other identifier of equipment on which procedure was performed?**
   - **Description of inspection or test performed?**
   - **Results of inspection or test?**

According to the M.I. Program, Paragraph 3.1, the information above is maintained in the Maintenance Manager's office. **This documentation on each performed inspection and test is incomplete or non-existent.**

8. **Are deficiencies in equipment that are outside limits (as defined in process safety information) corrected before further use or in a safe and timely manner when necessary means are taken to assure safe operation? [1910.119(j)(5)] [68.73(e)] - N**

Documentation of identification and/or correction of operation of equipment outside limits in a safe and timely manner do not appear to be recorded.

9. **In the construction of new plants and equipment, does the employer assure that equipment as it is fabricated is suitable for the process for which it will be used? [1910.119(j)(6)(i)] [68.73(f)(1)] - Y**

In accordance with the M.I. Program, Paragraph 5.0, "Quality Assurance", the Technical Operations Manager or Maintenance Manager at Dreyer's TXOC assure that equipment, as it is fabricated, is suitable for the process application for which it will be used.

10. **Have appropriate checks and inspections been made to assure equipment is installed properly and consistent with design specifications and manufacturer's instructions? (Include contractor supplied equipment.) [1910.119(j)(6)(ii)] [68.73(f)(2)] - Y**

In accordance with the M.I. Program, Paragraph 5.0, "Quality Assurance", the Technical Operations Manager or Maintenance Manager at Dreyer's TXOC assure that appropriate inspection and checks are performed to assure that equipment is installed properly and consistent with design specifications and manufacturers recommendations.

11. **Does the employer assure that maintenance materials, spare parts, and equipment are suitable for the process application for which they are used? [1910.119(j)(6)(iii)] [68.73(f)(3)] – Y**

In accordance with the M.I. Program, Paragraph 5.0, "Quality Assurance", the Technical Operations Manager or Maintenance Manager at Dreyers TXOC assure that maintenance materials, spare parts, and equipment are suitable for the process application for which they will be used.

HOT WORK PERMIT - 1910.119(k) & 68.85

The intent of this paragraph is to require employers to control, in a consistent manner, non-routine, work conducted in process areas. Specifically, this subparagraph is concerned with the permitting of hot work operations associated with welding and cutting in process areas.

Minimum requirements include: that the employer issue a hot work permit for hot work operations conducted on or near a covered process and that hot work permits shall document compliance with the fire prevention and protection requirements of 29 CFR 1910.252(a).

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field/verification of programs)

1. **Have hot work permits been issued for all hot work operations conducted on or near a process covered by this standard? [1910.119(k)(1)] [68.85(a)] - Y**

   Dreyer's Grand Ice Cream TXOC maintains a file of expired Hot Work Permits. The Hot Work Permit section of Dreyer's Grand Ice Cream TXOC PSM Manual requires the permits to be issued.

2. **Do the hot work permits indicate the date(s) authorized for hot work performed? [1910.119 (k)(2)] [68.85(b)] - Y**

   The recording of the authorization date is an integral part of the Dreyer's Grand Ice Cream TXOC Hot Work Permit form.

3. **Do the hot work permits describe the object on which the hot work is to be performed? [1910.119(k)(2)] [68.85(b)] - Y**

   The recording of the "location" is an integral part of the Dreyer's Grand Ice Cream TXOC Hot Work Permit form and describes the object on which the hot work is performed.

4. **Have the hot work permits been kept on file until the hot work operations were completed? [1910.119(k)(2)] [68.85(b)] - Y**

   Dreyer's Grand Ice Cream TXOC Hot Work Permit calls for the permits to be kept on file by the Technical Operations Manager until hot work operations are completed. Upon successful completion of the work the completed permit is filed with the Risk and Safety Manager.

5. **Does the permit document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations? [68.85(b)] [1910.252(a)] - P**

   Dreyer's Grand Ice Cream TXOC Hot Work Permit documents that the fire prevention and protection requirements in 29 CFR 1910.252(a) has been implemented prior to beginning the hot work operations. **A review of the permits and of the training documentation indicates that the following provisions may not be fully met: 1910.252(a)(2)(xiii)(C), and 1910.252(a)(2)(xiii)(D). By allowing the company to be specified in the "Work Performed By" field it may not be possible to show that the person doing the welding is trained in the safe operation of their equipment. It was not obvious from the training records that Hot Work has been covered in the overview training. Further no documentation could be found that showed that contractors received the PSM Awareness training.**

The intent of this paragraph is to require management of all modifications to equipment, procedures, raw materials and processing conditions other than "replacement in kind" by identifying and reviewing them prior to implementation of the change. Minimum requirements for management of change include: establishing written procedures to manage change; addressing the technical basis, impact on safety and health, modification to operating procedures, necessary time period, and authorizations required; informing and training employees affected, and updating process safety information and operating procedures or practices.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field/verification of programs)

1. **Are there written procedures for managing changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures and changes to facilities that affect a covered process? [1910.119(l)(1)] [68.75(a)] - P**

   (Review procedures that address responsibilities, steps for assessing risks and approving changes, requirements for reviewing designs for temporary and permanent changes, steps needed to verify that modifications have been made as designed, variance procedures, time limit authorizations for temporary changes, and steps required to return the process to status quo after temporary changes.)

   Dreyers has established a written procedure for Management of Change in its TXOC PSM Program Manual. A separate manual containing historical MOC forms (logged and numbered) is maintained in the Technical Manager's office. MOC history is also maintained in a Management of Change database. MOCs are maintained for minor, major and replacement-in-kind changes.

   The effective date for the MOC procedure is not specified. *The existing MOC procedure is very detailed and provides a MOC flowchart and Safety Review Checklist. It specifies that a sample Management of Change Form (MCF) can be found at the end of the section; however, none is provided. The MOC procedure spells out definitions and examples of changes to equipment,*

facilities, procedures, and process technology, as well as definitions of major and minor changes and "replacement in kind". **The MOC procedure appears to not address changes in raw materials.**

MOC #71 is missing in the database.

Based on cursory review of MOCs #60 thru #93, documentation of MOCs is incomplete and often inconsistent.

Based on review of other Process Safety Management elements (e.g., SOPs, Emergency Response), **there are no MOCs to document that changes to SOPs and ER plans have been communicated to those affected as they should be.**

2. **Do the procedures assure that the technical basis for the proposed change is addressed prior to any change? [1910.119 (l)(2)(i)] [68.75(b)(1)] - Y**

Paragraph 1.1 of the MOC procedure requires the MOC form (when initiated) to include a description of the technical basis for the change. Based on a cursory review of MOC #60 thru #93, a description of the technical basis for the change appears to be provided for each MOC, although level of detail varies.

3. **Do the procedures assure that the impact of the change on safety and health is addressed prior to any change? [1910.119(l)(2)(ii)] [68.75(b)(2)] - P**

The MOC procedure specifies that the Risk and Safety Manager will review the impact of the change on safety and health. A Safety Review Checklist attached to the MOC appears to be the consistent method used for assessing the risk and safety aspects of the changes. For major changes, a formal

process hazards analysis must be conducted (according to the MOC procedure). The formal PHA is listed as "Optional" on the MOC flowchart.

The MOC database indicates that PHAs have been performed for major changes. MOCs #61 and #65-70 refer to a PHA performed October 11, 1999. MOC #60 refers to a PHA performed June 21, 1999. **It is not readily apparent where the PHA documentation is. There should probably be better cross-referencing in place between MOC forms and other documentation filed elsewhere.**

Under Paragraph 6.0 of the MOC procedure, the Safety and Health Review points to a review conducted "using a safety review checklist (see Section 6 – Pre-Startup Safety Review)". At the end of the MOC procedure, there is a Safety Review Checklist. In Section 6 of the PSM Program Manual, there is a Pre Startup Safety Review Verification Form. The two checklists are not consistent. It appears that Paragraph 6.0 should refer the safety review checklist at the end of the MOC procedure, not the PSSR checklist.

Under Paragraph 7.0 of the MOC procedure, it describes the need for a PHA if the MOC constitutes a "major" change. Under Paragraph 7.2, the items needed to be addressed in the PHA are listed. This list does not include requirements for compliance with the EPA RMP Rule and offsite consequences. This list should be updated or the MOC procedure revised to cross-reference the PHA procedure in the PSM Program Manual.

Based on a cursory review of MOCs, there is no documentation for MOC #68, #69 and #70 that indicates a Safety Review Checklist or Pre-Startup Review was performed for this change. These forms (attached to MOC form) are left blank.

4. **Do the procedures assure that modifications to operating procedures is addressed prior to any change? [1910.119(1)(2)(iii)] [68.75(b)(3)] - P**

In accordance with Paragraph 9.2 of the MOC procedure, MOC will require development of, or

modification to, a number of documents, including operating procedures. **It is not clear that modifications to SOPs have been addressed prior to any change.**

5. **Do the procedures assure that the necessary time period for the change is addressed prior to any change? [1910.119(1)(2)(iv)] [68.75(b)(4)] - N**

   The time period for the change does not appear to be addressed or formally documented prior to the change.

6. **Do the procedures assure that the authorization requirements for the proposed change are addressed prior to any change? [1910.119(1)(2)(v)] [68.75(b)(5)] - Y**

   Authorization requirements are very adequately documented on the MOC Database form prior to the change.

7. **Are employees involved in operating a process, and maintenance and contract employees whose job tasks will be affected by change informed of, and trained in, the change prior to start-up of process or affected part of process? [1910.119(1)(3)] [68.75(c)] - P**

   Training verification is supposed to be documented in the Pre-Startup Safety Review Verification Form. Training is provided to employees involved in operating the process, employees involved in maintaining the equipment in the process, and employees that are required to respond to emergencies involved in the process. **Some training verification forms are not completed.**

   For MOC #60, training for employees involved in operating the process is reportedly "in progress" as of 08/01/99 (as are the O&M procedures to be developed, modified, and implemented).

8. **Is the process safety information required by paragraph (d) (Process Safety Information) updated if changed?**

[1910.119(1)(4)] [68.75(d)] - P

In accordance with Paragraph 9.2 of the Dreyers TXOC MOC procedure, MOC will require development of, or modification to, a number of documents. Stated examples of these include: flow schematics, equipment plans, SOPs, valve list, M.I. inspection information, technical operating specs, P&IDs, relief vent calculations, electrical one-line diagrams, and ammonia inventory calculations. **Based on review of MOCs, it is not clear that all of this information was consistently reviewed and changed because of the MOC. Some information (e.g., P&IDs) has been updated, but overall impression is that a lot of other PSI is not updated or incomplete. Pre-Startup Safety Review Verification Form calls for PSI to be updated and complete; however, these forms are often incomplete or not filled out.**

9. **Are the operating procedures or practices required by paragraph (f) (Operating Procedures) updated if changed? [1910.119(1)(5)] [68.75(e)] - P**

As stated above and in accordance with Paragraph 9.2 of the Dreyers TXOC MOC procedure, MOC will require development of, or modification to, a number of documents, including, but not limited to SOPs. **Based on review of MOCs, it is not clear that all of SOPs were consistently reviewed and changed because of the MOC.**

According to Safety Review Checklist for MOC #65 and MOC #67, SOPS were reviewed and updated to reflect the change.

INCIDENT INVESTIGATIONS - 1910.119(m) & 68.81

The employer is required to investigate each incident, which resulted in, or could reasonably have resulted in a catastrophic release of highly hazardous chemical in the workplace. An investigation shall be initiated no later that 48 hours following the incident. An investigation team shall be established and a report prepared which includes: 1) date of incident, 2) date investigation began, 3) description of incident, 4) factors that contributed to the incident, and 5) recommendations from the investigations. The employer is required to establish a system to promptly address the incident report findings and recommendations, documenting all resolutions and corrective actions. Incident reports shall be reviewed with all affected personnel whose job tasks are relevant to the investigation and retained for five years.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field/verification of programs)

1. **Has each incident been investigated which resulted in, or could reasonably have resulted in a catastrophic release of highly hazardous chemicals in the workplace? [1910.119(m)(1)] [68.81(a)] - Y**

   The Dreyer's Grand Ice Cream Risk & Safety Manager is responsible for the Incident Investigation element for PSM and RMP. A review of the PSM Incident file and by employee interviews indicates that all ammonia releases regardless of how small or if they could have resulted in a catastrophic release of ammonia has been investigated

2. **Have incident investigations been initiated as promptly as possible, but not later than 48 hours following the incident? [1910.119(m)(2)] [68.81(b)] - Y**

   There have been no incidents involving catastrophic releases during the operation of this facility. Proper procedures are in place to initiate this procedure, if necessary. Procedures are defined in the Safety Manual and the PSM Manual. The records review and employee interviews indicate that all investigations since Dryer's has been owner have been initiated as promptly as possible.

3. **Have incident investigation teams been established? Do the teams contain at least one person knowledgeable in the process involved in the incident, and other members with appropriate knowledge and experience to thoroughly investigate and analyze the incident? Has a contractor employee been included in the team if the incident involved work of the contractor? [1910.119(m)(3)] [68.81(c)] - Y**

There have been no incidents involving catastrophic releases during the operation of this facility. Proper procedures are in place to initiate this procedure, if necessary. Procedures are defined in the Safety Manual and the PSM Manual. Investigation teams have been formed with at least one person knowledgeable in the process and with other members with appropriate knowledge to investigate and analyze each incident.

4. **Have incident investigation reports been prepared at the conclusion of the investigation which include at minimum:**
   - **Date of the incident?**
   - **Date the investigation began?**
   - **A description of the incident?**
   - **The factors that contributed to the incident?**
   - **Any recommendations resulting from the investigation? [1910.119(m)(4)] [68.81(d)] - Y**

There have been no incidents involving catastrophic releases during the operation of this facility. Proper procedures are in place to initiate this procedure, if necessary. Procedures are defined in the Safety Manual and the PSM Manual. Dreyer's Grand Ice Cream has prepared an incident investigation reports that include all required elements.

5. **Has a system been established to promptly address and resolve the incident investigations report findings and recommendations? [1910.119(m)(5)] [68.81(e)] - Y**

It is the responsibility of the Incident Investigation Team to assign responsibility and target dates for

the corrective action recommendations. The system is well defined in the Safety Manual and the PSM Manual.

6. **Have resolutions and corrective actions from the incident investigation reports been documented? [1910.119 (m)(5)] [68.81(e)] - Y**

There have been no incidents involving catastrophic releases during the operation of this facility. Proper procedures are in place to initiate this procedure, if necessary. Procedures are defined in the Safety Manual and the PSM Manual. Resolutions and corrective actions have been documented when required.

7. **Have incident investigations reports been reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees, where applicable? [1910.119(m)(6)] [68.81(f)] - Y**

There have been no incidents involving catastrophic releases during the operation of this facility. Proper procedures are in place to initiate this procedure, if necessary. Procedures are defined in the Safety Manual and the PSM Manual. Incident investigation reports have been reviewed by affected employee(s)

8. **Are incident investigation reports retained for five years? [1910.119(m)(7)] - Y**

There have been no incidents involving catastrophic releases during the operation of this facility. The PSM Incident file contains incidents back to 12/6/96, and a five-year accident history has been prepared as part of the RMP requirements.

EMERGENCY PLANNING AND RESPONSE - 1910.119(n)

The intent of this paragraph is to require the employer to address what actions employees are to take when there is an unwanted release of highly hazardous chemicals. The employer must establish and implement an emergency action plan in accordance with the provisions of 29 CFR 1910.38(a) and include procedures for handling small releases. Certain provisions of the hazardous waste and emergency response standard, 29 CFR 1910.120(a), (p), and (q) may also apply.

(NOTE: 1910.120(a) addresses scope, application, and definitions for the entire standard. 1910.120(p) addresses treatment, storage, and disposal (TSD) facilities under the Resource Conservation and Recovery Act (RCRA). 1910.120(q) addresses requirements for facilities that are not RCRA TSD's, where there is the potential for an emergency incident involving hazardous substances. Cleanup operations--including corrective actions and post-emergency response cleanup--are covered by 1910.120(b) through (o). For further guidance, refer to the forthcoming directive on 29 CFR 1910.120.)

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field verification of programs)

1. Has an emergency action plan been established and implemented for the entire plant in accordance with the requirements of 1910.38? Does the plan address the following?
   - Escape procedures and routes?
   - Procedures for post-evacuation employee accounting?
   - Preferred means to report emergencies?
   - Duties and procedures of employees who:
     - Remain to operate critical equipment?
     - Perform rescue and medical duties?
   - The names for persons or locations to contact for more action plan information?
   - Employee alarm systems? [1910.119(n)] [1910.38(a)] - P

   There have been multiple emergency planning and response programs that have been written for Dreyers TXOC. The Dreyers Grand Ice Cream TXOC Safety Manual contains a procedure (TXOC-

30, "Emergency Preparedness", Effective Date 4/27/00). The PSM Program Manual also contains a section on Emergency Planning and Response. The SOP Manual also has information about Emergency Shutdown and what to do in case of an emergency.

Together, the Dreyer's emergency response and preparedness plans possess good characteristics of a good emergency response program and address the required elements of the OSHA PSM and EPA RMP regulations. Members of the organization are assigned specific duties in case of an emergency. An Emergency Response Program Organization Chart (Unified Incident Command) has been established; see Procedure TXOC-30. The ER Plan includes procedures for informing the public and local agencies responding to accidental releases. It includes specific actions to be taken in response to accidental releases. It also includes information about emergency health care. **The Program needs updating and could be improved to better protect employees, contractors, visitors and others on-site in the event of an emergency. Dreyers should consider establishing a single, integrated plan, which addresses all regulatory requirements, and/or provide cross-referencing between the multiple documents containing information about emergency planning and response to ensure consistent, accurate information.**

Evidence could not be found of a building evacuation map showing evacuation routes, etc being posted in the facility*; however, a building evacuation map does exist. The escape procedure calls for the Emergency Response Coordinator (On-Shift Manager) to check wind direction by referring to "wind socks/flag" and determine safest meeting area.* **It appears the wind sock on roof is hard to view in most cases (even when on roof); thereby, possibly making timely, accurate determination of wind direction difficult. There is no written procedure that requires a flag to be hoisted or to exist daily on the flagpole in front of the building. Referring the Emergency Response Coordinator to a "flag" which sometimes may not exist may not be good practice.**

There is no complete evidence that employees, contractors and emergency response coordinators have been trained in their respective responsibilities and functions in case of an emergency. Training records and drill reports are unavailable. There is no written schedule for emergency shutdown drills.

There appears to be no one designated to be responsible for updating the emergency action plan and that each employee covered by the plan is trained whenever there are changes to the plan.

Emergency Ammonia Spill Response Plan should refer technicians to Emergency Shutdown Procedure EMERGSD in SOP Manual for taking appropriate measures to control release. EMERGSD should also cross reference Emergency Response Plan.

The preferred method for reporting emergencies seems to be via telephone. **There appears to be no means of ensuring that all emergency messages shall have priority over all non-emergency messages when communication systems serve as the employee alarm. Emergency telephone numbers for in-house emergency response coordinators are not posted near telephones, employee notice boards, and other conspicuous locations to aid reporting of emergencies.** *Contact numbers and locations of emergency health care facilities are visibly posted.*

Page 10 of 16 of TXOC-30 refers to "Fort Wayne systems". This should probably be changed to Houston.

2. **Is the plan written if the facility has more than ten employees? [1910.38(a)(1)] – Y**

Dreyers TXOC has more than 10 employees and has a written plan.

Manual alarm systems seem to be readily accessible to employees in potentially affected work areas and unobstructed and conspicuous.

7. **Does the written emergency response plan meet the requirements of 1910.120(a), (p), and (q), if appropriate?**

   (See the NOTE at I., Program Summary. Cleanup operations required by a governmental body are addressed in .120(a); treatment, storage, and disposal (TSD) facilities under the Resource Conservation and Recovery Act are addressed in .120(p); and .120(q) addresses requirements for emergency response no matter where they occur, except that it does not cover employees engaged in operations at TSD facilities or hazardous waste sites.) [1910.120(a), (p), (q)] - N

   There is no reference to 1910.120(a), (p) or (q) in the Dreyers ER plans or any indication that these requirements have been incorporated where required or reviewed for applicability.

8. **If employees are engaged in emergency response (except clean-up operations), does the plan address the following: [1910.120(q)] - P**
   - **Coordination with outside parties? – Y**
   - **Personnel roles, lines of authority, training and communication? – Y**
   - **Emergency recognition and prevention? – Y**
   - **Safe distances and places of refuge? – N**
   - **Site security and control? – Y**
   - **Evacuation routes and procedures? – N**
   - **Decontamination? – N**
   - **Emergency medical treatment and first aid? – Y**
   - **Emergency alerting and response procedures? – Y**
   - **Critique of response and follow-up? – Y**
   - **PPE and emergency equipment? – N**

The ER plan addresses coordination with outside parties and who is to be contacted and alerted in case of and in follow-up to emergencies (see Exhibit 5, Procedure TXOC-30, "Chemical Release Notification").

Personnel roles, lines of authority, training and communication are generally outlined in the Procedure TXOC-30 and the PSM Program Manual. Roles and lines of authority are depicted in the Emergency Response Organization Chart (Unified Incident Command). Training and communication is described, **but there appears to be no evidence of documented training and communication through training records, etc., available.**

Safe distances and places of refuge are not specified, nor is there documentation of evacuation routes readily available or posted. A description of these would be beneficial enhancements to the ER program.

Decontamination of PPE is specified in TXOC-37, "Personal Protective Equipment Procedure", Paragraph XIV, Page 13 of 14. **The ER plan should be modified to cross-reference procedure.**

Emergency medical treatment and first aid is addressed; however, **information is inconsistent between the written procedure and what is visibly posted. Procedure TXOC-30 specifies Concentra – Occupational Health Clinic will be used for treatment of all injured employees; whereas, a visible bulletin board posting specifies U.S. Healthworks as the clinic to be used. This same bulletin board (located on east wall of main hallway leading to production area, about halfway down) also provides contact information for the local hospital (Memorial Hospital) in case of severe injuries or treatment required. The Procedure and postings should be made consistent.**

PPE and emergency equipment requirements are specified and depend on the ammonia release. (See Exhibit 3, TXOC-30). **SCBA equipment appears to be not readily accessible (locked away with key access to limited persons). There appears to be no evidence of training of employees in use of SCBA. PPE requirements in emergency response plan should cross reference Dreyers Procedure TXOC-37, "Personal Protective Equipment Procedure".**

The intent of this paragraph is to require employers to self-evaluate the effectiveness of their PSM program by identifying deficiencies and assuring corrective actions. Minimum requirements include: audits at least every three years; maintenance of audit reports for at least the last two audits; audits conducted by at least one person knowledgeable in the process; documentation of an appropriate response to each finding; documentation that the deficiencies found have been corrected.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field verification of programs)

1. **Has the employer certified in writing that there has been an audit of compliance with PSM (provisions of Prevention Program) at least every three years? [1910.119(o)(1)] [68.79(a)] - N**

   The plant was established by Borden Ice Cream in 1985 and sold to Dreyer's in 1996. **No PSM compliance audit has been certified in writing to have occurred by either Dreyer's or Borden.** *This current audit allows Dreyer's Grand Ice Cream to certify that the first audit has been conducted during July 2000. The next PSM/RMP compliance audit should be completed by July 2003.*

2. **Do the audit reports include an evaluation of all the required paragraphs of the PSM standard (to verify that the developed procedures and practices are adequate and are being followed)? [1910.119(o)(1)] [68.79(a)] – N/A**

   This current audit is the first. The report will include evaluation of compliance for all paragraphs of the PSM/RMP standard.

3. **Was the compliance audit conducted by at least one person who was knowledgeable in the process? [1910.119(o)(2)] [68.79(b)] – N/A**

   The current audit was conducted with at least one of Dreyer's Grand Ice Cream TXOC personnel who is knowledgeable in the process. The Employee Participation Section of the Dreyer's Grand Ice Cream

TXOC PSM Manual specifies that at least one maintenance employee should be involved in the compliance audit. **Paragraph 1.4 of the Compliance Audit Procedure should make reference to the Employee participation goal of including at least one maintenance employee.**

4. **Has a report of the findings been developed for each audit? [1910.119(o)(3)] [68.79(c)] – N/A**

   There have been no previous audits. A report of the findings of this first audit will be completed.

5. **Has the employer promptly determined and documented an appropriate response to each of the findings? [1910.119(o)(4)] [68.79(d)] – N/A**

   Not applicable as of yet. Dreyer's Grand Ice Cream TXOC plans to make appropriate responses to the audit findings.

6. **Does the employer document that deficiencies have been corrected? [1910.119(o)(4)] [68.79(d)] –N/A**

   Not applicable as of yet. Dreyer's Grand Ice Cream TXOC plans to document that deficiencies have been corrected.

7. **Has the employer retained the two most recent compliance audit reports? [1910.119(o)(5)] [68.79(d)] – N/A**

   Not applicable as of yet. Dreyer's Grand Ice Cream TXOC plans to retain the two most recent compliance audit reports.

TRADE SECRETS - 1910.119(p)

The intent of this paragraph is to require employers to provide all information necessary to comply with the standard to personnel developing paragraphs (d), (e), (f), (n) and (o) without regard to possible trade secrets. In addition, employees and their designated representatives shall have access to trade secrets information contained within documents required to be developed by the standard.

VERIFICATION OF PROGRAM ELEMENTS -

(Records reviewed with field verification of programs)

1. **Has all information necessary been provided to those persons responsible for compiling the process safety information (paragraph d), those assisting in development of the PHA (paragraph e), those responsible for developing the operating procedures (paragraph f), and those involved in incident investigations (paragraph m) and emergency planning and response (paragraph n), and compliance audits (paragraph 0) been without regard to possible trade secrets status of such information? [1910.119(p)(1)] -Y**

   All necessary information regarding the process technology is made available to employees working on various portions of Process Safety Management.

2. **Do employees and their designated representatives have access to trade secrets information contained in the PHA and to other documents required to be developed by the standard, subject to the provisions set forth in 1910.1200(i)(1) through (i)(12)? NOTE: Trade secret information made available through confidentiality agreements as set forth in 29 CFR 1910.1200. [1910.119(p)(3)] - Y**

   All necessary information is available to persons requesting access to the PHA and other PSM documents. Each employee at Dreyer's Grand Ice Cream required to adhere to the POLICY contained in the Trade Secrets section of Dreyer's Grand Ice Cream TXOC PSM Manual. **PSM Awareness Document should be modified to include a reference to the Trade Secrets policy with respect to dissemination of information.**

Guidance for Auditing Risk Management Plans & Programs
(SUBPART A)
Applicability [68.1]

Audit Checklist

Process audited: Ammonia Refrigeration

Auditor: D. Alex Taylor
Instructions: This checklist may be used for verification of RMP and Program compliance.
(Coding: Y=Yes, N=No, P=Partial, NA=Not Applicable). These responses can be both informational in nature, or they can imply compliance or non-compliance similar to responses used in the previous checklist used to demonstrate compliance with PSM elements in the OSHA 29 CFR 1910.119 and RMP Program 3 Prevention Program.
Note: Compliance Objectives appear in the order they appear in the RMP rule

1. RISK MANAGEMENT PROGRAM AND PLAN
(SUBPART A)
Applicability [68.1]

1.1. Does the owner or operator of the stationary source have more than a threshold quantity of a regulated substance in a process? [68.10(a)] – Y - *(Ammonia)*

1.2. Has the process had, in the five years prior to submission of the RMP, an accidental release of a regulated substance where exposure to the substance, its reaction products, overpressure generated by an explosion involving the substance, or radiant heat generated by a fire involving the substance led to any of the following off-site: (i) Death; (ii) Injury; or (iii) Response or restoration activities for an exposure of an environmental receptor? [68.10(b)(1)] - N

1.3. Is the distance to a toxic or flammable endpoint for a worst-case release assessment less than the distance to any public receptor? [68.10(b)(2)] – N - *(Radius of 1.3 miles for 1500 lb 10 minute release) - 7 Schools, 1 hospital, 1 park, industrial neighbors, and residences,*

1.4. Has the owner or operator coordinated emergency response procedures between the stationary source and local emergency planning and response organizations? [68.10(b)(3)] - Y

1.5. Is the covered process subject to OSHA PSM standard, 29 CFR 1910.119? [68.10(d)(2)] - Y

1.6. Is the covered process in one of the NAICS codes listed in 40 CFR §68.10(d)(1)? [68.10(d)(1)]
Auditor may need to re-answer 1.5 and 1.6 for multiple processes in comments section. – N – *NAICS Code 31152*

General Requirements [68.12]

1.7. Has the owner or operator submitted a single RMP, which included a registration that reflects all covered processes, as provided in 68.150 to 68.185? [68.12(a)] – Y - *(Single RMP for a single covered process)*

PROGRAM 1 PROCESSES

1.8. For Program 1 processes audited, has the owner or operator: [68.12(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.1. Analyzed the worst-case release scenario for the process (es), as provided in 68.25; [68.12(b)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.2. Documented that the nearest public receptors is beyond the distance to an endpoint defined in 68.22(a); and [68.12(b)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.3. Included the scenario(s) in the RMP as provided in 68.165? [68.12(b)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.4. Completed the five-year accident history for the process as provided in 68.42 [68.12(b)(2)]; and – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.5. Included the history in the RMP as provided in 68.168? [68.12(b)(2)] – NA

Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.6. Ensured that response actions have been coordinated with local emergency planning and response agencies? [68.12(b)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.8.7. Included the appropriate certification statement for Program 1 processes? [68.12(b)(4)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

PROGRAM 2 PROCESSES
1.9. For Program 2 processes has the owner or operator: [68.12(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.9.1. Developed and implemented a management system as provided in 68.15? [68.12(c)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.9.2. Conducted a hazard assessment as provided in 68.20 through 68.42? [68.12(c)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

1.9.3. Implemented the Program 2 prevention steps provided in 68.48 through 68.60 or implemented the Program 3 prevention steps provided in 68.65 through 68.87? [68.12(c)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program

Level 3.

1.9.4. Developed and implemented an emergency response program as provided in 68.90 to 68.95? [68.12(c)(4)] – NA - *Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.*

1.9.5. Submitted, as part of the RMP, the data on prevention program elements for Program 2 processes as provided in 68.170? [68.12(c)(5)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

PROGRAM 3 PROCESSES
1.10. For Program 3 processes has the owner or operator: [68.12(d)] - Y

1.10.1. Developed and implemented a management system as provided in 68.15? [68.12(d)(1)] – Y – *Management system is described in Section 3.3 of June 1999 RMP for Dreyer's Grand Ice Cream.*

1.10.2. Conducted a hazard assessment as provided in 68.20 through 68.42? [68.12(d)(2)] – Y – *Hazard analysis has been conducted as provided in 68.20 through 68.42.*

1.10.3. Implemented the prevention requirements provided in 68.65 through 68.87? [68.12(d)(3)] - Y – *The prevention program, which includes the 12 points required in 68.65 through 68.87, is included in the 14 point OSHA PSM prevention program. The RMP prevention program is summarized in Section 4.0 of the June 1999 RMP for Dreyer's Grand Ice Cream* **with the exception that the summary of the Hot Work program is absent and a summary of Trade Secret program provided instead**. *Hot Work has been implemented (See pages 44-45 of this document for PSM/RMP Audit information).*

1.10.4. Developed and implemented an emergency response program as provided in 68.90 to 68.95? [68.12(d)(4)] – Y- *An Emergency Response program has been implemented (See pages 53-60 of this document for PSM/RMP Audit*

information)

1.10.5. Submitted, as part of the RMP, the data on prevention program elements for Program 3 processes as provided in 68.175? [68.12(d)(5)] - Y – *All data required as part of 68.175 was submitted as part of the RMP.*

Management [68.15]

Has the owner or operator:

1.11. Developed a management system to oversee the implementation of the risk management program elements? [68.15(a)] – Y – *A management system has been developed.*

1.12. Assigned a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements? [68.15(b)] – Y – *A position has been assigned the overall responsibility for the Overall Program, and a person has been identified who held the position at the time of RMP submittal.*

1.13. Documented other persons responsible for implementing individual requirements of the risk management program and defined the lines of authority through an organization chart or similar document? [68.15(c)] - Y – *Other persons have been assigned to implement individual requirements and the lines of authority have been defined using an organizational chart.*

General Findings / Conclusions: (SUBPART A) – There is Compliance with the provisions of Subpart A with no exceptions.

Documentation obtained to support Findings / Conclusions: (SUBPART A) June 1999 RMP for Dreyer's Grand Ice Cream, PHA for Ammonia Refrigeration system, MOCs, PSSRs, OSHA PSM Manual for Dreyer's Grand Ice Cream, P&IDs, Operating Procedures, Emergency Response Plan, TXOC Safety Manual, Incident Investigation reports and written program, Training records, Hot Work Permits and written program, Confined Space Entry Permits and written program, Line breaking permits, Contractor selection program, Lock-out-tag-out logs, Maintenance procedures, Equipment files. Organizational Charts, Hazard Analysis, Five-year accident history, RMP registration information, Worst Case scenario information, Alternate scenario information, Inventory Calculations, Receptor analysis, and MSDS.

2. RMP: SUBMISSION (SUBPART G) 68.150 - 68.190

2.1. Did the owner or operator submit an RMP on or before June21, 1999? – Y – *Based on printout date of RMP Registration Information of June 17, 1999*
Postmark date of initial submission: [68.10, 68.10(a)(1), 68.150(a) & (b)] – N – Postmark date can not be found in the RMP Report, only undated copies of Certified Mail receipt for submittal to RMP Reporting Center.

If submission was after June 21, 1999, was submittal required because: [68.10 & 68.150(b)] - NA

2.1.1. Initial listing of a regulated substance under 68.130 after June 21, 1999 [68.10(a)(2) & 68.150(b)(2)] - NA

2.1.2. A regulated substance was first present at the stationary source above the threshold quantity in a process [68.10(a)(3) & 68.150(b)(2)] - NA

2.2. Has the owner or operator revised and updated the RMP within 5 years of initial submission? Date of the last revision and update [68.190(a)]: - N – The last update was June 1999 (17th?)

2.3. If required, has the owner or operator submitted a revised RMP for any of the following: [68.190(b)] -NA

2.3.1. Within 3 years after EPA first listed a newly regulated substance? [68.190(b)(2)] - NA

2.3.2. No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity? [68.190(b)(3)] - NA

2.3.3. No later than the date on which a regulated substance is first present above a threshold quantity in a new process? [68.190(b)(4)] - NA

2.3.4. Within six months of a change that requires a revised PHA or hazard review? [68.190(b)(5)] – NA – *Only two minor PHAs have been performed since date of original submittal.*

2.3.5. Within six months of a change that requires a revised off-site consequence analysis as provided in 68.36? [68.190(b)(6)] - NA

2.3.6. Within six months of a change that alters the Program level that applied to any covered process? [68.190(b)(7)] - NA

2.4. Has the owner or operator included information submitted as CBI in the RMP? [68.150(d)] - N

2.4.1. If so, were the provisions of 68.151 and 68.152 followed? - NA

RMP: Executive Summary [68.155]

2.5. Has the owner or operator included a brief description of the following elements in the executive summary of the RMP: [68.155] - P

2.5.1. The accidental release prevention and emergency response policies at the stationary source? [68.155(a)] – N – A brief description of the emergency response polices was not included.

2.5.2. The stationary source and regulated substances handled? [68.155(b)] - Y

2.5.4. The worst-case release and alternative release scenario(s), including administrative controls and mitigation measures to limit the distances for each reported scenario? [68.155(c)] – Y

2.5.5. The general accidental release prevention program and chemical-specific prevention steps? [68.155(d)] - Y

2.5.6. The five-year accident history? [68.155(e)] – P – the five-year history was mentioned, but no summary or brief description was given.

2.5.7. The emergency response program? [68.155(f)] – N – A brief description of the emergency response program was not included.

2.5.8. Planned changes to improve safety? [68.155(g)] – N – A brief description of planned changes to improve safety was not included. (Note: This requires a statement saying none are planned, if that is the case.)

RMP: Registration [68.160]

2.6. Has the owner or operator included a single registration form in the RMP which covers all regulated substances handled in covered processes? [68.160(a)] - Y

2.7. Does the registration include the following data: [68.160(b)] - P

2.7.1. Stationary source name, full address, Dun and Bradstreet number; longitude and latitude with method and description? [68.160(b)(1) & (2)] - Y

2.7.2. Corporate parent company name and Dun and Bradstreet number? [68.160(b)(3)] - Y

2.7.3. The name, telephone number, and mailing address of the owner or operator? [68.160(b)(4)] - Y

2.7.4. The name and title of the person or position with overall responsibility for RMP elements and implementation? [68.160(b)(5)] - Y

2.7.5. The name, title, telephone number, and 24-hour number of the emergency contact? [68.160(b)(6)] - Y

2.7.6. For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process, the NAICS code, and the Program level of the process? [68.160(b)(7)] - Y

2.7.7. The stationary source EPA identifier? [68.160(b)(8)] - Y

2.7.8. The number of full-time employees at the stationary source? [68.160(b)(9)] - Y

2.7.9. Whether the stationary source is subject of 29 CFR §1910.119, OSHA's Process Safety Management Standard? [68.160(b)(10)] - Y

2.7.10. Whether the stationary source is subject to 40 CFR Part 355, the Emergency Planning Requirements of the Emergency Planning and Community Right-to-Know Act? [68.160(b)(11)] – N – The registration does not contain this specific information.

2.7.11. If the stationary source has a CAA Title V operating permit, its permit number? [68.160(b)(12)] - NA

2.7.12. The date of the last safety inspection of the stationary source by a Federal, state, or local government agency and the identity of the inspecting entity? [68.160(b)(13)] – Y – *OSHA inspection was performed on 08/28/1998.*

RMP: Off-site Consequence Analysis [68.165]

2.8. Does the RMP include the following: [68.165(a)] - Y

2.8.1. One worst-case release scenario for each Program 1 process? [68.165(a)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.8.2. For Program 2 and 3 processes, one worst-case release scenario to represent all regulated toxic substances held above the threshold quantity and one worst-case release scenario to represent all regulated flammable substances held above the threshold quantity? [68.165(a)(2)] - Y

2.8.3. For Program 2 and 3 processes, were additional worst-case scenarios also submitted, if required by 68.25(a)(2)(iii)? [68.165(a)(2)] - NA

2.8.4. For Program 2 and 3 processes, was information submitted on one alternative scenario for each regulated toxic substance held above the threshold quantity and one alternative scenario to represent all regulated flammable substances held above the threshold? [68.165(a)(2)] – Y – *Only one scenario required as no regulated flammable substances are in the process.*

2.9 Does the RMP include the following information for each submitted release scenario: [68.165(b)] - Y

2.9.1. Scenario type (explosion, fire, toxic gas release, or liquid spill and vaporization)? [68.165(b)(5)] - Y

2.9.2. Chemical name of released substance? [68.165(b)(1)] - Y

2.9.3. Percentage weight of the chemical in a liquid mixture (toxics only)? [68.165(b)(2)] – NA – *Not a mixture.*

2.9.4. Physical state of substance (toxics only)? [68.165(b)(3)] - Y

2.9.5. Basis of results (model name if used)? [68.165(b)(4)] - Y

2.9.6. Quantity released in pounds? [68.165(b)(6)] - Y

2.9.7. Release rate? [68.165(b)(7)] - Y

2.9.8. Release duration? [68.165(b)(8)] - Y

2.9.9. Wind speed and atmospheric stability class (toxics only)? [68.165(b)(9)] - Y

2.9.10. Topography (toxics only)? [68.165(b)(10)] - Y

2.9.11. Distance to endpoint? [68.165(b)(11)] - Y

2.9.12. Public and environmental receptors within the distance? [68.165(b)(12)] - Y

2.9.13. Passive mitigation considered? [68.165(b)(13)] - Y

2.9.14. Active mitigation considered (alternative releases scenarios only)? [68.165(b)(14)] - Y

RMP: Five-year accident history [68.42]

2.10. Has the owner or operator provided the five-year accident history information in 68.42 on each accident covered by 68.42? [68.168] – NA – *There have been no accidental releases from the ammonia refrigeration process (covered process) 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. Only one release required a plant evacuation.*

2.11. Does the RMP include the following information for each reported accidental release: [68.42(b)] – NA – See question 2.10

2.11.1. Date, time, and approximate duration of the release? [68.42(b)(1)] – NA – See question 2.10

2.11.2. Chemical(s) released? [68.42(b)(2)] – NA – See question 2.10

2.11.3. Estimated quantity released in pounds and percentage weight in a mixture (toxics)? [68.42(b)(3)] – NA – See question 2.10

2.11.4. NAICS code for the process? [68.42(b)(4)] – NA – See question 2.10.

2.11.5. The type of release event and its source? [68.42(b)(5)] – NA – See question 2.10

2.11.6. Weather conditions (if known)? [68.42(b)(6)] – NA – See question 2.10

2.11.7. On-site impacts? [68.42(b)(7)] – NA – See question 2.10

2.11.8. Known offsite impacts? [68.42(b)(8)] – NA – See question 2.10

2.11.9. Initiating event and contributing factors (if known)? [68.42(b)(9)] – NA – See question 2.10

2.11.10. Whether offsite responders were notified (if known)? [68.42(b)(10)] – NA – See question 2.10

2.11.11. Operational or process changes that resulted from investigation of the release? [68.42(b)(11)] – NA – See question 2.10

RMP: Prevention program / Program 2 [68.17]

2.12. Has the owner or operator included the following information for each covered process in Program 2? [68.170(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.1. The NAICS code for the process? [68.170(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.2. The name(s) of the chemical(s) covered? [68.170(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.3. The date of the most recent review or revision of the safety information and a list of Federal or state regulations or industry-specific design codes and standards used to demonstrate compliance with the safety information requirement. [68.170(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4. The date of completion of the most recent hazard review or update? [68.170(e)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.1. The expected date of completion of any changes resulting from the hazard review or update? [68.170(e)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.2. Major hazards identified? [68.170(e)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.3. Process controls in use? [68.170(e)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.4. Mitigation systems in use? [68.170(e)(4)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.5. Monitoring and detection systems in use? [68.170(e)(5)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.4.6. Changes since the last hazard review? [68.170(e)(6)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.5. The date of the most recent review or revision of operating procedures? [68.170(f)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.6. The date of the most recent review or revision of training programs? [68.170(g)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.6.1 The type of training provided--classroom, classroom plus on the job, on the job? [68.170(g)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.6.2. The type of competency testing used? [68.170(g)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.7. The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested? [68.170(h)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.8. The date of the most recent compliance audit and the expected date of completion of any change resulting from the compliance audit? [68.170(i)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.9. The date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation? [68.170(j)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.12.10. The date of the most recent change that triggered a review or revision of safety information, hazard review, operating or maintenance procedures, or training? [68.170(k)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

RMP: Prevention program / Program 3 [68.175]

2.13. Has the owner or operator included in the RMP information addressing 68.175(b) to 68.175(p)? [68.175(a)] - Y

2.13.1. The NAICS code for the process? [68.175(b)] - Y

2.13.2. The name(s) of the substance(s) covered? [68.175(c)] - Y

2.13.3. The date on which the safety information was last reviewed or revised? [68.175(d)]- Y

2.13.4. The date of completion of the most recent process hazard analysis (PHA) or update and the technique used? [68.175(e)] - Y

2.13.4.1. The expected date of completion of any changes resulting from the PHA? [68.175(e)(1)] - Y

2.13.4.2. Major hazards identified? [68.175(e)(2)] - Y

2.13.4.3. Process controls in use? [68.175(e)(3)] - Y

2.13.4.4. Mitigation systems in use? [68.175(e)(4)] - Y

2.13.4.5. Monitoring and detection systems in use? [68.175(e)(5)] - Y

2.13.4.6. Changes since the last PHA? [68.175(e)(6)] - Y

2.13.5. The date of the most recent review or revision of operating procedures? [68.175(f)] - Y

2.13.6. The date of the most recent review or revision of training programs? [68.175(g)] - Y

2.13.6.1. The type of training provided--classroom, classroom plus on the job, on the job? [68.175(g)(1)] - Y

2.13.6.2. The type of competency testing used? [68.175(g)(2)] - Y

2.13.7. The date of the most recent review of revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected of tested? [68.175(h)] - Y

2.13.8. The date of the most recent change that triggered management of change procedures and the date of the most recent review or revision of management of change procedures? [68.175(i)] - Y

2.13.9. The date of the most recent pre-startup review? [68.175(j)] - Y

2.13.10. The date of the most recent compliance audit and the expected date of completion of any change resulting from the compliance audit? [68.175(k)] – Y – No Documentation could be found on site for the Audit date given.

2.13.11. The date of the most recent incident investigation and the expected date of completion of any change resulting from the investigation? [68.175(l)] - Y

2.13.12. The date of the most recent review or revision of employee participation plans? [68.175(m)] - Y

2.13.13. The date of the most recent review or revision of hot work permit procedures? [68.175(n)] - Y

2.13.14. The date of the most recent review or revision of contractor safety procedures? [68.175(o)] - Y

2.13.15. The date of the most recent evaluation of contractor safety performance? [68.175(p)] - Y

RMP: Emergency Response Program [68.18]

2.14. Has the owner or operator included the following information in the RMP on the emergency response program: [68.18] - Y

2.14.1. Does a written emergency response plan exist? [68.180(a)(1)] - Y

2.14.2. Does the plan include specific actions to be taken in response to an accidental releases of a regulated substance? [68.180(a)(2)] - Y

2.14.3. Does the plan include procedures for informing the public and local agencies responsible for responding to accidental releases? [68.180(a)(3)] - Y

2.14.4. Does the plan include information on emergency health care? [68.180(a)(4)] - Y

2.14.5. Date of the most recent review of update of emergency response plan? [68.180(a)(5)] - Y

2.14.6. Date of the most recent emergency response training for employees? [68.180(a)(6)] - Y

2.15. Has the owner or operator provided the name and telephone number of the local agency with which emergency response activities and the emergency response plan is coordinated? [68.180(b)] - Y

2.16. Has the owner or operator listed other Federal or state emergency plan requirements to which the stationary source is subject? [68.180(c)] - Y

RMP: Certification [68.185]

2.17. Has the owner or operator: [68.185]

2.18. For Program 1 processes, submitted the certification statement in 68.12(b)(4)? [68.185(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

2.19. For Program 2 or 3 processes, submitted the appropriate certification statement that to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete? [68.185(b)] - Y

General Findings / Conclusions: (SUBPART G) There is general compliance with the provisions of Subpart G with the following exceptions:

1) Under "Submission", Questions 2.1 and 2.2 - The June 1999 RMP for Dreyer's Grand Ice Cream could not show the exact postmarked date when the plan was submitted.

2) Under "Executive Summary", Question 2.5.1 – A brief statement of the Emergency Response Policy was not included; Question 2.5.6 – A brief statement of the Five-year accident history was not included; Question 2.5.7 – A brief statement of the Emergency Response Program was not included; Question 2.5.8 - A brief description of planned changes to improve safety was not included. (Note: This requires a statement saying no changes to improve safety are planned, if that is the case.)

3) Under "Registration", Question 2.7.10 - Whether the stationary source is subject to 40 CFR Part 355, the Emergency Planning Requirements of the Emergency Planning and Community Right-to-Know Act was not stated as part of the registration.

4) Under "Prevention Program", Question 2.13.10 - The date of the most recent compliance audit and the

expected date of completion of any changes resulting from the compliance audit were given; however, the compliance audit documentation, for the date listed for that audit, could not be found on site.

Documentation obtained to support Findings / Conclusions: (SUBPART G) June 1999 RMP for Dreyer's Grand Ice Cream, PHA for Ammonia Refrigeration system, MOCs, PSSRs, OSHA PSM Manual for Dreyer's Grand Ice Cream, P&IDs, Operating Procedures, Emergency Response Plan, TXOC Safety Manual, Incident Investigation reports and written program, Training records, Hot Work Permits and written program, Confined Space Entry Permits and written program, Line breaking permits, Contractor selection program, Lock-out-tag-out logs, Maintenance procedures, Equipment files. Organizational Charts, Hazard Analysis, Five-year accident history, RMP registration information, Worst Case scenario information, Alternate scenario information, Inventory Calculations, Receptor analysis, MSDS.

Hazard Assessment: Applicability [68.2]

3. HAZARD ASSESSMENT (SUBPART B) 68.20 - 68.42
Hazard Assessment: Applicability [68.2]

3.1. Has the owner or operator prepared a worst-case release scenario analysis as provided in 68.25 and completed the five-year accident history as provided in 68.42? [68.2] - Y

Hazard Assessment: Offsite consequence analysis parameters [68.22]

Has the owner or operator:

3.2. Used the following endpoints for offsite consequence analysis for a worst-case scenario: [68.22(a)] -Y

3.2.1. For toxics: the endpoints provided in Appendix A of 40 CFR Part 68? [68.22(a)(1)] - Y

3.2.2. For flammables: an explosion resulting in an overpressure of 1 PSI? [68.22(a)(2)(i)] - NA

3.3. Used the following endpoints for offsite consequence analysis for an alternative release scenario: [68.22(a)] - Y

3.3.1. For toxics: the endpoints provided in Appendix A of 40 CFR Part 68? [68.22(a)(1)] - Y

3.3.2. For flammables: an explosion resulting in an overpressure of 1 PSI? [68.22(a)(2)(i)] - NA

3.3.3. For flammables: a fire resulting in a radiant heat/exposure of 5 kw/m2 for 40 seconds? [68.22(a)(2)(ii)] - NA

3.3.4. For flammables: a concentration resulting in a lower flammability limit, as provided in NFPA documents or other generally recognized sources? [68.22(a)(2)(iii)] - NA

3.4. Used appropriate wind speeds and stability classes for the release analysis? [68.22(b)] - Y

3.5. Used appropriate ambient temperature and humidity values for the release analysis? [68.22(c)] - Y

3.6. Used appropriate values for the height of the release for the release analysis? [68.22(d)] - Y

3.7. Used appropriate surface roughness values for the release analysis? [68.22(e)] - Y

3.8. Do tables and models, used for dispersion analysis of toxic substances, appropriately account for dense or neutrally buoyant gases? [68.22(f)] - Y

3.9. 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)] - NA

Hazard Assessment: Worst-case release scenario analysis [68.25]

Has the owner or operator of Program 1 processes:

3.10. Analyzed and reported in the RMP one worst-case scenario for each Program 1 process? [68.25(a)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Has the owner or operator of Program 2 or 3 processes:

3.11. 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)] - Y

3.12. 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)] - NA

3.13. 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)] - NA

Has the owner or operator:

3.14. Determined the worst-case release quantity to be the greater of the following: [68.25(b)] - Y

3.14.1. 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)] – Y – *No administrative control was assumed, as there is no*

level control on the tank. A full inventory was assumed.

3.14.2. 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)] – N – *Pipe release was considered, but it was not the Worst-case.*

Has the owner or operator:

For toxic substances that are normally gases at ambient temperature and handled as a gas or liquid under pressure:

3.15. Assumed the whole quantity in the vessel or pipe would be released as a gas over 10 minutes? [68.25(c)(1)] - Y

3.16. 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)] - Y

Has the owner or operator:

For toxic gases handled as refrigerated liquids at ambient pressure:

3.17. 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)] – NA

3.18. [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)] – NA

3.19. 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)] - NA

Has the owner or operator:
For toxic substances that are normally liquids at ambient temperature:

3.20. Assumed the quantity in the vessel or pipe would be spilled instantaneously to form a liquid pool? [68.25(d)(1)] - NA

3.21. 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)] - NA

3.22. 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)] - NA

3.23. 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)] - NA

3.24. Determined the rate of release to air from the volatilization rate of the liquid pool? [68.25(d)(3)] - NA

3.25. 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)] - NA

Guidance for Auditing Risk Management Plans & Programs
SUBPART B
Hazard Assessment: Worst-case release scenario analysis [68.25]

Has the owner or operator:

For flammables:

3.26.1. 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)] - NA

3.26.2. 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)] - NA

3.27. 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)] - NA

Has the owner or operator:

3.28. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.25(g)] - Y

3.29. 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)] - Y

3.29.1 What modeling technique did the owner or operator use? [68.25(g)] – RMP Guidance for Ammonia Refrigeration Reference Tables or Equations.

3.30. 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)] – Y – *A release inside the building falls under this category, with the building acting as the mitigating system.*

3.31. Considered also the following factors in selecting the worst-case release scenarios: [68.25(i)] -Y

3.31.1. Smaller quantities handled at higher process temperature or pressure? [68.25(i)(1)] - Y

3.31.2. Proximity to the boundary of the stationary source? [68.25(i)(2)] - Y

Hazard Assessment: Alternate release scenario analysis [68.28]

Has the owner or operator:

3.32. Identified and analyzed at least one alternate release scenario for each regulated toxic substance held in a covered process (es) and at least one alternate release scenario to represent all flammable substances held in covered processes? [68.28(a)] - Y

3.33. Selected a scenario: [68.28(b)] - Y

3.33.1. That is more likely to occur than the worst-case release scenario under 68.25? [68.28(b)(1)(i)] - Y

3.33.2. That will reach an endpoint off-site, unless no such scenario exists? [68.28(b)(1)(ii)] - Y

3.34. Considered release scenarios which included, but are not limited to, the following: [68.28(b)(2)] - P

3.34.1. Transfer hose releases due to splits or sudden hose uncoupling? [68.28(b)(2)(i)] - Y

3.34.2. Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds? [68.28(b)(2)(ii)] – Y – *A 2-in hole was used which would represent these types of leaks.*

3.34.3. Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure? [68.28(b)(2)(iii)] – Y – *The vessel was assumed to fail and al the liquid refrigerated ammonia run out on the concrete floor and vaporize.*

3.34.4. Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks? [68.28(b)(2)()] – N – No scenarios like this were documented to be considered nor was an explanation provided as to why they do not appear on the list of scenarios analyzed.

3.34.5. Shipping container mishandling and breakage or puncturing leading to a spill? [68.28(b)(2)(v)] - NA

3.35. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.28(c)] - Y

3.36. 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)] - Y

3.37. 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)] – Y – *A release inside the building falls under this category, with the building acting as the mitigating system.*

3.38. Considered the following factors in selecting the alternate release scenarios: [68.25(e)] - Y

3.38.1. The five-year accident history provided in 68.42? [68.25(e)(1)] - Y

3.38.2. Failure scenarios identified under 68.50 or 68.67? [68.25(e)(2)] - Y

Hazard Assessment: Defining off-site impacts - population [68.3]

Has the owner or operator:

3.39. 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

3.40. Identified the presence of institutions, parks and recreational areas, major commercial, office, and industrial buildings in the RMP? [68.30(b)] - Y

3.41. Used most recent Census data, or other updated information to estimate the population? [68.30(c)] - Y

3.42. Estimated the population to two significant digits? [68.30(d)] - Y

Hazard Assessment: Defining off-site impacts - environment [68.33]

Has the owner or operator:

3.43. 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)] – N – *Environmental Receptors were attempted to be identified as part of the receptor analysis; however, none were identified in the impact zone that included in the distance to the endpoint based on a circle with the point of release at the center.*

3.44. 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)] – Y- *LandView III was used.*

Hazard Assessment: Review and update [68.36]

Has the owner or operator:

3.45. Reviewed and updated the off-site consequence analyses at least once every five years? [68.36(a)] – NA – *Initial submittal was June 1999.*

3.46. 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)] – NA – *The conditions requiring a revised analysis to be completed and submitted have not occurred.*

Hazard Assessment: Documentation [68.39]

Has the owner or operator maintained records of the following:

3.47. 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 administrate controls and passive mitigation on the release quantity and rate? [68.39(a)] - Y

3.48. For alternate 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 administrate controls and mitigation on the release quantity and rate? [68.39(b)] – Y

3.49. Documentation of estimated quantity released, release rate, and duration of release? [68.39(c)] - Y

3.50. Methodology used to determine distance to endpoints? [68.39(d)] - Y

3.51. Data used to estimate population and environmental receptors potentially affected? [68.39(e)] Y

Hazard Assessment: Five-year accident history [68.42]

3.52. 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)] Y – *None have occurred so none were included. A listing of al releases was obtained and analyzed.*

3.53. Has the owner or operator reported the following information for each accidental release: [68.42(b)] – NA – *See question 3.52.*

3.53.1. Date, time, and approximate duration of the release? [68.42(b)(1)] – NA – *See question 3.52.*

3.53.2. Chemical(s) released? [68.42(b)(2)] – NA – *See question 3.52.*

3.53.3. Estimated quantity released in pounds and percentage weight in a mixture (toxics)? [68.42(b)(3)] – NA – *See question 3.52.*

3.53.4. NAICS code for the process? [68.42(b)(4)] – NA – *See question 3.52.*

3.53.5. The type of release event and its source? [68.42(b)(5)] – NA – *See question 3.52.*

3.53.6. Weather conditions (if known)? [68.42(b)(6)] – NA – *See question 3.52.*

3.53.7. On-site impacts? [68.42(b)(7)] – NA – *See question 3.52.*

3.53.8. Known offsite impacts? [68.42(b)(8)] – NA – *See question 3.52.*

3.53.9. Initiating event and contributing factors (if known)? [68.42(b)(9)] – NA – *See question 3.52.*

SUBPART B
Hazard Assessment: Five-year accident history [68.42]

3.53.10. Whether offsite responders were notified (if known)? [68.42(b)(10)] – NA – *See question 3.52.*

3.53.11. Operational or process changes that resulted from investigation of the release? [68.42(b)(11)] – NA – *See question 3.52.*

General Findings / Conclusions: (SUBPART B) There is Compliance with the provisions of Subpart B with the following exception:

1) Under "Hazard Assessment: Alternate release scenario analysis [68.28]", Question 3.34. Release scenarios were not documented to show that (Question 3.34.4), vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks, was considered, nor was an explanation provided as to why they do not appear on the list of scenarios analyzed.

Documentation obtained to support Findings / Conclusions: (SUBPART B) June 1999 RMP for Dreyer's Grand Ice Cream, PHA for Ammonia Refrigeration system, MOCs, PSSRs, OSHA PSM Manual for Dreyer's Grand Ice Cream, P&IDs, Operating Procedures, Emergency Response Plan, TXOC Safety Manual, Incident Investigation reports and written program, Training records, Hot Work Permits and written program, Confined Space Entry Permits and written program, Line breaking permits, Contractor selection program, Lock-out-tag-out logs, Maintenance procedures, Equipment files. Organizational Charts, Hazard Analysis, Five-year accident history, RMP registration information, Worst Case scenario information, Alternate scenario information, Inventory Calculations, Receptor analysis, MSDS.

4. PROGRAM 2 PREVENTION PROGRAM (SUBPART C) [68.48 - 68.60]
Program 2 Prevention - Safety information [68.48]

Has the owner or operator:

4.1. Compiled and maintained the following up-to-date safety information, related to the regulated substances, processes, and equipment: [68.48(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.1.1. Material Safety Data Sheets (MSDS) that meet the requirements of the OSHA Hazard Communication Standard [29 CFR 1910.1200(g)]? [68.48(a)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.1.2. Maximum intended inventory of equipment in which the regulated substances are stored or processed? [68.48(a)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.1.3. Safe upper and lower temperatures, pressures, flows, and compositions? [68.48(a)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.1.4. Equipment specifications? [68.48(a)(4)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.1.5. Codes and standards used to design, build, and operate the process? [68.48(a)(5)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.2. Ensured the process is designed in compliance with recognized and generally accepted good engineering practices? [68.48(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.3. Updated information if a major change has occurred that made the information inaccurate? [68.48(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Hazard review [68.5]

4.4. Has the owner or operator conducted a review of the hazards associated with the regulated substances, processes, and procedures? [68.50(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.5. Did the review identify:

4.5.1. The hazards associated with the process and regulated substances? [68.50(a)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.5.2. Opportunities for equipment malfunctions or human errors that could cause an accidental release? [68.50(a)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.5.3. The safeguards used or needed to control the hazards or prevent equipment malfunctions or human error? [68.50(a)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.5.4. Any steps used or needed to detect or monitor releases? [68.50(a)(4)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Has the owner or operator:

4.6. Determined by inspecting all equipment that the processes are designed, fabricated, and operated in accordance with applicable standards or rules, if designed to meet industry standards or Federal or state design rules? [68.50(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.7. Documented the results of the review? [68.50(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.8. Ensured that problems identified were resolved in a timely manner? [68.50(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.9. Updated the review at least once every five years or whenever a major change in the processes occurred? [68.50(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.10. Resolved all issues identified in the review before startup of the changed process? [68.50(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Operating procedures [68.52]

4.11. Has the owner or operator prepared written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process? Operating procedures or instructions provided by equipment manufacturers or developed by persons or organizations knowledgeable about the process and equipment may be used as a basis for a stationary source's operating procedures. [68.52(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12. Do the procedures address the following: [68.52(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.1. Initial startup? [68.52(b)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.2. Normal operations? [68.52(b)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.3. Temporary operations? [68.52(b)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.4. Emergency shutdown and operations? [68.52(b)(4) – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.5. Normal shutdown? [68.52(b)(5)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.6. Startup following a normal or emergency shutdown or a major change that requires a hazard review? [68.52(b)(6)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.7. Consequences of deviations and steps required to correct or avoid deviations? [68.52(b)(7)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.12.8. Equipment inspections? [68.52(b)(8)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.13. Has the owner or operator ensured that the operating procedures have been updated, if necessary, whenever a major change occurred and prior to startup of the changed process? [68.52(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Training [68.54]

Has the owner or operator:

4.14. Certified that each employee presently operating a process, and each employee newly assigned to a covered process have been trained or tested competent in the operating procedures provided in § 68.52 that pertain to their duties? For those employees already operating a process on June 21, 1999, the 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 provided in the operating procedures. [68.54(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.15. Provided refresher training at least every three years, or more often if necessary, to each employee operating a process, to ensure that the employee understands and adheres to the current operating procedures of the process? [68.54(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.16. Determined, in consultation with the employees operating the process, the appropriate frequency of refresher training? [68.54(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.17. Certified that each employee was trained in any updated or new procedures prior to startup of a process after a major change? [68.54(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Maintenance [68.56]

Has the owner or operator:

4.18. Prepared and implemented procedures to maintain the on-going mechanical integrity of the process equipment? [68.56(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.19. Trained or caused to be trained each employee, involved in maintaining the on-going mechanical integrity of the process, in the hazards of the process, in how to avoid or correct unsafe conditions, and in the procedures applicable to the employee's job tasks? [68.56(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.20. Has every maintenance contractor ensured that each contract maintenance employee is trained to perform the maintenance procedures developed? [68.56(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.21. Has the owner or operator performed or caused to be performed inspections and tests on process equipment that follow recognized and generally accepted engineering practices? [68.56(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Compliance audits [68.58]

4.22. Has the owner or operator certified that compliance audits are conducted at least every three years to verify that the procedures and practices are adequate and are being followed? [68.58(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.23. Has compliance audit been conducted by at least one person knowledgeable in the process? [68.58(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.24. Has the owner operator developed a report of the audits findings? [68.58(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.25. 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? [68.58(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.26. Has the owner or operator retained the two most recent compliance audit reports, unless more than five years old? [68.58(e)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Program 2 Prevention - Incident investigation [68.6]

4.27. Has the owner or operator investigated each incident which resulted in, or could reasonably have resulted in a catastrophic release? [68.60(a)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.28. Were all incident investigations initiated not later than 48 hours following the incident? [68.60(b)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29. Was a summary prepared at the conclusion of every investigation, which included: [68.60(c)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29.1. Date of incident? [68.60(c)(1)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29.2. Date investigation began? [68.60(c)(2)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29.3. A description of incident? [68.60(c)(3)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29.4. The factors that contributed to the incident? [68.60(c)(4)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.29.5. Any recommendations resulting from the investigation? [68.60(c)(5)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.30. Has the owner or operator promptly addressed and resolved the investigation findings and recommendations, and are the resolutions and corrected actions documented? [68.60(d)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.31. Has the owner or operator reviewed the finding with all affected personnel whose job tasks are affected by the findings? [68.60(e)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

4.32. Has the owner or operator retained investigation summaries for five years? [68.60(f)] – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

General Findings / Conclusions: (SUBPART C) – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

Documentation obtained to support Findings / Conclusions: (SUBPART C) – NA
Dreyer's Grand Ice Cream TXOC has elected to classify all equipment containing ammonia as one process in Program Level 3.

5. PROGRAM 3 PREVENTION PROGRAM (SUBPART D) [68.65 - 68.87]

Program 3 Prevention - Process safety information [68.65]

5.1. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2. Does the process safety information contain the following for hazards of the substances: [68.65(b)]

5.2.1. Toxicity information? [68.65(b)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.2. Permissible exposure limits? [68.65(b)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.3. Physical data? [68.65(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.4. Reactity data? [68.65(b)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.5. Corrosity data? [68.65(b)(5)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.6. Thermal and chemical stability data? [68.65(b)(6)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.2.7. Hazardous effects of inadvertent mixing of materials that could foreseeably occur? [68.65(b)(7)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3. Does the process safety information contain the following for technology of the process: [68.65(c)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3.1. A block flow diagram or simplified process flow diagram? [68.65(c)(1)(i)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3.2. Process chemistry? [68.65(c)(1)(ii)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3.3. Maximum intended inventory? [68.65(c)(1)(iii)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3.4. Safe upper and lower limits for such items as temperatures, pressures, flows or compositions? [68.65(c)(1)()] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.3.5. An evaluation of the consequences of deviations? [68.65(c)(1)(v)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4. Does the process safety information contain the following for the equipment in the process: [68.65(d)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.1. Materials of construction? [68.65(d)(1)(i)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.2. Piping and instrument diagrams? [68.65(d)(1)(ii)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.3. Electrical classification? [68.65(d)(1)(iii)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.4. Relief system design and design basis? [68.65(d)(1)()] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.5. Ventilation system design? [68.65(d)(1)(v)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.6. Design codes and standards employed? [68.65(d)(1)(vi)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.7. Material and energy balances for processes built after June 21, 1999? [68.65(d)(1)(vii)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.4.8. Safety systems? [68.65(d)(1)(viii)] – *Evaluated under OSHA Process Safety Management 29 CFR -*

PROCESS SAFETY INFORMATION - 1910.119(d).

5.5. Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices? [68.65(d)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

5.6. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS SAFETY INFORMATION - 1910.119(d).*

Program 3 Prevention - Process hazard analysis [68.67]

5.7. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.8. Has the owner or operator determined and documented the priority order for conducting PHAs, and was it based on a appropriate rationales? [68.67(a)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9. Has the owner or operator used one or more of the following technologies: [68.67(b)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.1. What-If? [68.67(b)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.2. Checklist? [68.67(b)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.3. What-If/Checklist? [68.67(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.4. Hazard and Operability Study (HAZOP)? [68.67(b)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.5. Failure Mode and Effects Analysis (FMEA)? [68.67(b)(5)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.6. Fault Tree Analysis? [68.67(b)(6)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.9.7. An appropriate equivalent methodology? [68.67(b)(7)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10. Did the PHA address: [68.67(c)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.1. The hazards of the process? [68.67(c)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.2. Identification of any incident which had a likely potential for catastrophic consequences? [68.67(c)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.3. Engineering and administrate controls applicable to hazards and interrelationships? [68.67(c)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.4. Consequences of failure of engineering and administrate controls? [68.67(c)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.5. Stationary source siting? [68.67(c)(5)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.6. Human factors? [68.67(c)(6)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.10.7. An evaluation of a range of the possible safety and health effects of failure of controls? [68.67(c)(7)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.11. Was the PHA performed by a team with expertise in engineering and process operations and did the team include appropriate personnel? [68.67(d)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.12. Has the owner or operator established a system to promptly address the team's findings and recommendations; assured that the recommendations are resolved in a timely manner and documented; documented what actions are to be taken; completed actions as soon as possible; developed a written schedule of when these actions are to be completed; and communicated the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations? [68.67(e)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.13. Has the PHA been updated and revalidated by a team every five years after the completion of the initial PHA to assure that the PHA is consistent with the current process? [68.67(f)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

5.14. Has the owner or operator retained PHAs and updates or revalidations for each process covered, as well as

the resolution of recommendations for the life of the process? [68.67(g)] – *Evaluated under OSHA Process Safety Management 29 CFR - PROCESS HAZARD ANALYSIS - 1910.119(e).*

Program 3 Prevention - Operating procedures [68.69]

5.15. Has the owner or operator developed and implemented written operating procedures that provide instructions or steps for conducting activities associated with each covered process consistent with the safety information? [68.69(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16. Do the procedures address the following: [68.69(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1. Steps for each operating phase: [68.69(a)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.1. Initial startup? [68.69(a)(1)(i)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.2. Normal operations? [68.69(a)(1)(ii)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.3. Temporary operations? [68.69(a)(1)(iii)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.4. 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 executed in a safe and timely manner? [68.69(a)(1)()] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.5. Emergency operations? [68.69(a)(1)(v)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.6. Normal shutdown? [68.69(a)(1)(vi)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.1.7. Startup following a turnaround, or after emergency shutdown? [68.69(a)(1)(vii)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.2. Operating limits: [68.69(a)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.2.1. Consequences of deviations? [68.69(a)(2)(i)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.2.2. Steps required to correct or avoid deviation? [68.69(a)(2)(ii)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.3. Safety and health considerations: [68.69(a)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.3.1. Properties of, and hazards presented by, the chemicals used in the process? [68.69(a)(3)(i)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.3.2. Precautions necessary to prevent exposure, including engineering controls, administrate controls, and personal protective equipment? [68.69(a)(3)(ii)] – *Evaluated under OSHA Process Safety Management 29*

CFR – OPERATING PROCEDURES - 1910.119(f).

5.16.3.3. Control measures to be taken if physical contact or airborne exposure occurs? [68.69(a)(3)(iii)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.3.4. Quality control for raw materials and control of hazardous chemical inventory levels? [68.69(a)(3)()] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.3.5. Any special or unique hazards? [68.69(a)(3)(v)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.16.4. Safety systems and their functions? [68.69(a)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.17. Are operating procedures readily accessible to employees who are involved in a process? [68.69(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.18. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

5.19. Has the owner or operator developed and implemented safe work practices to provide for the control of hazards during specific operations, such as logout/tagout? [68.69(d)] – *Evaluated under OSHA Process Safety Management 29 CFR – OPERATING PROCEDURES - 1910.119(f).*

Program 3 Prevention - Training [68.71]

5.20. Has each employee presently 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – TRAINING - 1910.119(g).*

5.21. 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)(2)] allows 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)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – TRAINING - 1910.119(g).*

5.22. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – TRAINING - 1910.119(g).*

5.23. Has owner or operator ascertained and documented in a record that each employee involved in operating a process has received and understood the training required? [68.71(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – TRAINING - 1910.119(g).*

5.24. Does the prepared record contain the identity of the employee, the date of training, and the means used to verify that the employee understood the training? [68.71(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – TRAINING - 1910.119(g).*

Program 3 Prevention - Mechanical integrity [68.73]

5.25. Has the owner or operator established and implemented written Program 3 Prevention - Mechanical integrity [68.73] procedures to maintain the on-going integrity of the process Program 3 Prevention - Mechanical integrity [68.73] equipment listed in 68.73(a)? [68.73(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.26. Has the owner or operator trained each employee involved in maintaining the on-going integrity of process equipment? [68.73(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

Has the owner or operator:

5.27. Performed inspections and tests on process equipment? [68.73(d)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.28. Followed recognized and generally accepted good engineering practices for inspection and testing procedures? [68.73(d)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.29. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.30. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.31. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.32. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.33. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

5.34. Assured that maintenance materials, spare parts and equipment were suitable for the process application for which they would be used? [68.73(f)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – MECHANICAL INTEGRITY - 1910.119(j).*

Program 3 Prevention - Management of change [68.75]

5.35. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36. Do procedures assure that the following consideration are addressed prior to any change: [68.75(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36.1. The technical basis for the proposed change? [68.75(b)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36.2. Impact of change on safety and health? [68.75(b)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36.3. Modifications to operating procedures? [68.75(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36.4. Necessary time period for the change? [68.75(b)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.36.5. Authorization requirements for the proposed change? [68.75(b)(5)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.37. 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 change prior to start-up of the process or affected part of the process? [68.75(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.37. If a change resulted in a change in the process safety information, was such information updated accordingly? [68.75(d)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

5.38. If a change resulted in a change in the operating procedures or practices, had such procedures or practices been updated accordingly? [68.75(e)] – *Evaluated under OSHA Process Safety Management 29 CFR – MANAGEMENT OF CHANGE - 1910.119(l).*

Program 3 Prevention - Pre-startup review [68.77]

5.39. Has the owner or operator performed a pre-startup safety review for new stationary sources and for modified stationary sources when the modification was significant enough to require a change in the process safety information? [68.77(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40. Did the pre-startup safety review confirm that prior to the introduction of regulated substances to a process: [68.77(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40.1. Construction and equipment was in accordance with design specifications? [68.77(b)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40.2. Safety, operating, maintenance, and emergency procedures were in place and were adequate? [68.77(b)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40.3. For new stationary sources, a process hazard analysis had been performed and recommendations had been resolved or implemented before startup? [68.77(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40.4. Modified stationary sources meet the requirements contained in management of change? [68.77(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).*

5.40.5. Training of each employee involved in operating a process had been completed? [68.77(b)(4)] –

SUBPART D

Program 3 Prevention - Pre-startup review [68.77]

Evaluated under OSHA Process Safety Management 29 CFR – PRE-STARTUP SAFETY REVIEW - 1910.119(i).

Program 3 Prevention - Compliance audits [68.79]

5.41. 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 are being followed? [68.79(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – COMPLIANCE AUDITS - 1910.119(o).*

5.42. Has the audit been conducted by at least one person knowledgeable in the process? [68.79(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – COMPLIANCE AUDITS - 1910.119(o).*

5.43. Are the audits findings documented in report? [68.79(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – COMPLIANCE AUDITS - 1910.119(o).*

5.44. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – COMPLIANCE AUDITS - 1910.119(o).*

5.45. Has the owner or operator retained the two most recent compliance audit reports? [68.79(e)] – *Evaluated under OSHA Process Safety Management 29 CFR – COMPLIANCE AUDITS - 1910.119(o).*

Program 3 Prevention - Incident investigation [68.81]

5.46. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.47. Were all incident investigations initiated not later than 48 hours following the incident? [68.81(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.48. Was an incident 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 the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident? [68.81(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.49. Was a report prepared at the conclusion of every investigation? [68.81(d)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.50. Does every report include: [68.81(d)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.51.1. Date of incident? [68.81(d)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.51.2. Date investigation began? [68.81(d)(2)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.51.3. A description of the incident? [68.81(d)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.51.4. The factors that contributed to the incident? [68.81(d)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.51.5. Any recommendations resulting from the investigation? [68.81(d)(5)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.52. Has the owner or operator established a system to address and resolve the report findings and recommendations, and are the resolutions and corrected actions documented? [68.81(e)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

5.53. Was the report reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable? [68.81(f)] – *Evaluated under OSHA Process Safety Management 29 CFR – INCIDENT INVESTIGATIONS - 1910.119(m).*

Program 3 Prevention - Employee participation [68.83]

Has the owner or operator:

5.54. Developed a written plan of action regarding the implementation of the employee participation required by this section? [68.83(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – EMPLOYEE PARTICIPATION - 1910.119(c).*

5.55. Consulted with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in chemical accident prevention provisions? [68.83(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – EMPLOYEE PARTICIPATION - 1910.119(c).*

5.56. Provided to employees and their representatives access to process hazard analyses and to all other information required to be developed under chemical accident prevention rule? [68.83(c)] – *Evaluated under OSHA Process Safety Management 29 CFR – EMPLOYEE PARTICIPATION - 1910.119(c).*

Program 3 Prevention - Hot work permit [68.85]

5.57. Has the owner or operator issued a hot work permit for each hot work operation conducted on or near a covered process? [68.85(a)] – *Evaluated under OSHA Process Safety Management 29 CFR – HOT WORK PERMIT - 1910.119(k).*

5.58. Does the permit document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations? [68.85(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – HOT WORK PERMIT - 1910.119(k).*

5.59. Does the permit indicate the date(s) authorized for hot work and the object on which hot works to be performed? [68.85(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – HOT WORK PERMIT - 1910.119(k).*

5.60. Are the permits being kept on file until completion of the hot work operations? [68.85(b)] – *Evaluated under OSHA Process Safety Management 29 CFR – HOT WORK PERMIT - 1910.119(k).*

Program 3 Prevention - Contractors [68.87]

Has the owner or operator: [68.87(b)]

5.61. Obtained and evaluated information regarding the contract owner or operator's safety performance and programs when selecting a contractor? [68.87(b)(1)] – *Evaluated under OSHA Process Safety Management 29 CFR – CONTRACTORS - 1910.119(h).*

5.62. 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)] – *Evaluated under OSHA Process Safety Management 29 CFR – CONTRACTORS - 1910.119(h).*

5.63. Explained to the contract owner or operator the applicable provisions of emergency response program? [68.87(b)(3)] – *Evaluated under OSHA Process Safety Management 29 CFR – CONTRACTORS - 1910.119(h).*

5.64. 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 covered process areas? [68.87(b)(4)] – *Evaluated under OSHA Process Safety Management 29 CFR – CONTRACTORS - 1910.119(h).*

General Findings / Conclusions: (SUBPART D) – *Evaluated under OSHA Process Safety Management 29 CFR – CONTRACTORS - 1910.119(h); HOT WORK PERMIT - 1910.119(k); EMPLOYEE PARTICIPATION - 1910.119(c); INCIDENT INVESTIGATIONS - 1910.119(m); COMPLIANCE AUDITS - 1910.119(o); PRE-STARTUP SAFETY REVIEW - 1910.119(i); MANAGEMENT OF CHANGE - 1910.119(l); MECHANICAL INTEGRITY - 1910.119(j); TRAINING - 1910.119(g); OPERATING PROCEDURES - 1910.119(f); PROCESS HAZARD ANALYSIS - 1910.119(e); and PROCESS SAFETY*

INFORMATION - 1910.119(d).

Documentation obtained to support Findings / Conclusions: (SUBPART D) June 1999 RMP for Dreyer's Grand Ice Cream, PHA for Ammonia Refrigeration system, MOCs, PSSRs, OSHA PSM Manual for Dreyer's Grand Ice Cream, P&IDs, Operating Procedures, Emergency Response Plan, TXOC Safety Manual, Incident Investigation reports and written program, Training records, Hot Work Permits and written program, Confined Space Entry Permits and written program, Line breaking permits, Contractor selection program, Lock-out-tag-out logs, Maintenance procedures, Equipment files. Organizational Charts, Hazard Analysis, Five-year accident history, RMP registration information, Worst Case scenario information, Alternate scenario information, Inventory Calculations, Receptor analysis, MSDS.

SUBPART E
Emergency Response - Applicability [68.9]

6. EMERGENCY RESPONSE (SUBPART E) 68.90 - 68.95
Emergency Response - Applicability [68.9]

6.1. Has the owner or operator of a stationary source developed an emergency response program, unless the source need not comply? [68.90(a)] - Y

If the employees of the stationary source will not respond to accidental releases of regulated substances:

6.2. For stationary sources with any regulated toxic substance held in a process above the threshold quantity, is the stationary source included in the community emergency response plan developed under EPCRA? [68.90(b)(1)] - Y

6.3. For stationary sources with only regulated flammable substances held in a process above the threshold quantity, has the owner or operator coordinated response actions with the local fire department? [68.90(b)(2)] – NA - *Site has only ammonia.*

6.4. Are appropriate mechanisms in place to notify emergency responders when there is a need for a response? [68.90(b)(3)] - Y

6.5. Has the owner or operator developed and implemented an emergency response program for the purpose of protecting public health and the environment? [68.95(a)] - Y

6.6. Does the program include the following elements: [68.95(a)] - Y

6.6.1. An emergency response plan which is maintained at the stationary source? [68.95(a)(1)] - Y

6.6.2. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance? [68.95(a)(2)] - Y

6.6.3. Training for all employees in relevant procedures? [68.95(a)(3)] - Y

6.6.4. 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)] - Y

6.7. Does the emergency response plan contain the following elements: [68.95(a)(1)] - Y

6.7.1. Procedures for informing the public and local emergency response agencies about accidental releases? [68.95(a)(1)(i)] - Y

6.7.2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures? [68.95(a)(1)(ii)] - Y

6.7.3. Procedures and measures for emergency response after an accidental release of a regulated substance? [68.95(a)(1)(iii)] - Y

6.8. Did the owner or operator use a written plan that complies with other Federal contingency plan 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)] - Y

6.9. Has the emergency response plan been coordinated with the community emergency response plan developed under EPCRA? [68.95(c)] - Y

SUBPART E
Emergency Response - Applicability [68.9]

6.10. Has the owner or operator provided to the local emergency response officials information necessary for developing and implementing the community emergency response plan requested by the LEPC or emergency response officials? [68.95(c)] - Y

General Findings / Conclusions: (SUBPART E) – There is Compliance with the provisions of Subpart E with no exceptions.

Documentation obtained to support Findings / Conclusions: (SUBPART E)) June 1999 RMP for Dreyer's Grand Ice Cream, OSHA PSM Manual for Dreyer's Grand Ice Cream, Emergency Response Plan, TXOC Safety Manual, Training records, Hazard Analysis, Five-year accident history, RMP registration information, Worst Case scenario information, Alternate scenario information, Inventory Calculations, Receptor analysis.

Definitions.

"Atmospheric tank" means a storage tank which has been designed to operate at pressures from atmospheric through 0.5 psig (Pounds per square inch gauge, 3.45 Kpa).

"Boiling point" means the boiling point of a liquid at a pressure of 14.7 pounds per square inch absolute (p.s.i.a.) (760 mm.). For the purposes of this section, where an accurate boiling point is unavailable for the material in question, or for mixtures which do not have a constant boiling point, the 10 percent point of a distillation performed in accordance with the Standard Method of Test for Distillation of Petroleum Products, ASTM D-86-62, which is incorporated by reference as specified in Sec. 1910.6, may be used as the boiling point of the liquid.

"Catastrophic release" means a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to employees in the workplace.

"Facility" means the buildings, containers or equipment which contain a process.

"Highly hazardous chemical" means a substance possessing toxic, reactive, flammable, or explosive properties and specified by paragraph (a)(1) of this section.

"Hot work" means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

"Normally unoccupied remote facility" means a facility which is operated, maintained or serviced by employees who visit the facility only periodically to check its operation and to perform necessary operating or maintenance tasks. No employees are permanently stationed at the facility. Facilities meeting this definition are not contiguous with, and must be geographically remote from all other buildings, processes or persons.

"Process" means any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling, or the on-site movement of such chemicals, or combination of these activities. For purposes of this definition, any group of vessels which are interconnected and separate vessels which are located such that a highly hazardous chemical could be involved in a potential release shall be considered a single process.

"Replacement in kind" means a replacement which satisfies the design specification.

"Trade secret" means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix D contained in 1910.1200 sets out the criteria to be used in evaluating trade secrets.

Definitions

"Accidental release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source. *Act* means the Clean Air Act as amended (42 U.S.C. 7401 *et seq.*)

"Administrative controls" mean written procedural mechanisms used for hazard control.

"Administrator" means the administrator of the U.S. Environmental Protection Agency.

"AIChE/CCPS" means the American Institute of Chemical Engineers/Center for Chemical Process Safety. *API* means the American Petroleum Institute.

"Article" means a manufactured item, as defined under 29 CFR 1910.1200(b), that is formed to a specific shape or design during manufacture, that has end use functions dependent in whole or in part upon the shape or design during end use, and that does not release or otherwise result in exposure to a regulated substance under normal conditions of processing and use.

"ASME" means the American Society of Mechanical Engineers.

"CAS" means the Chemical Abstracts Service.

"Catastrophic release" means a major uncontrolled emission, fire, or explosion, involving one or more regulated substances that presents imminent and substantial endangerment to public health and the environment.

"Classified information" means "classified information" as defined in the Classified Information Procedures Act, 18 U.S.C. App. 3, section 1(a) as "any information or material that has been determined by the United States Government pursuant to an executive order, statute, or regulation, to require protection against unauthorized disclosure for reasons of national security."

"Condensate" means hydrocarbon liquid separated from natural gas that condenses due to changes in temperature, pressure, or both, and remains liquid at standard conditions.

"Covered process" means a process that has a regulated substance present in more than a threshold quantity as determined under § 68.115.

"Crude oil" means any naturally occurring, unrefined petroleum liquid.

"Designated agency" means the state, local, or Federal agency designated by the state under the provisions of § 68.215(d).

"DOT" means the United States Department of Transportation.

"Environmental receptor" means natural areas such as national or state parks, forests, or monuments; officially designated wildlife sanctuaries, preserves, refuges, or areas; and Federal wilderness areas, that could be exposed at any time to toxic concentrations, radiant heat, or overpressure greater than or equal to the endpoints provided in § 68.22(a), as a result of an accidental release and that can be identified on local U. S. Geological Survey maps. *Field gas* means gas extracted from a production well before the gas enters a natural gas processing plant.

"Hot work" means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

"Implementing agency" means the state or local agency that obtains delegation for an accidental release prevention program under subpart E, 40 CFR part 63. The implementing agency may, but is not required to, be the state or local air-permitting agency. If no state or local agency is granted delegation, EPA will be the implementing agency for that state.

"Injury" means any effect on a human that results either from direct exposure to toxic concentrations; radiant heat; or overpressures from accidental releases or from the direct consequences of a vapor cloud explosion (such as flying glass, debris, and other projectiles) from an accidental release and that requires medical treatment or hospitalization.

"Major change" means introduction of a new process, process equipment, or regulated substance, an alteration of process chemistry that results in any change to safe operating limits, or other alteration that introduces a new hazard.

"Mechanical integrity" means the process of ensuring that process equipment is fabricated from the proper materials of construction and is properly installed, maintained, and replaced to prevent failures and accidental releases.

"Medical treatment" means treatment, other than first aid, administered by a physician or registered professional personnel under standing orders from a physician.

"Mitigation" or "mitigation system" means specific activities, technologies, or equipment designed or deployed to capture or control substances upon loss of containment to minimize exposure of the public or the environment. Passive mitigation means equipment, devices, or technologies that function without human, mechanical, or other energy input. Active mitigation means equipment, devices, or technologies that need human, mechanical, or other energy input to function.

"NAICS" means North American Industry Classification System being followed.

"NFPA" means the National Fire Protection Association.

"Natural gas processing plant" (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both, classified as North American Industrial Classification System (NAICS) code 211112 (previously Standard Industrial Classification (SIC) code 1321).

"Offsite" means areas beyond the property boundary of the stationary source, and areas within the property boundary to which the public has routine and unrestricted access during or outside business hours.

"OSHA" means the U.S. Occupational Safety and Health Administration. Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

"Petroleum refining process unit" means a process unit used in an establishment primarily engaged in petroleum refining as defined in NAICS code 32411 for petroleum refining (formerly SIC code 2911) and used for the following: Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants; Separating petroleum; or Separating, cracking, reacting, or reforming intermediate petroleum streams. Examples of such units include, but are not limited to, petroleum based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units include sulfur plants.

"Population" means the public.

"Process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

"Produced water" means water extracted from the earth from an oil or natural gas production well, or that is separated from oil or natural gas after extraction.

"Public" means any person except employees or contractors at the stationary source.

"Public receptor" means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release.

"Regulated substance" is any substance listed pursuant to section 112(r)(3) of the Clean Air Act as amended, in § 68.130.

"Replacement in kind" means a replacement that satisfies the design specifications.

"RMP" means the risk management plan required under subpart G of this part.

"SIC" means Standard Industrial Classification.

"Stationary source" means any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulation under 49 CFR parts 192, 193, or 195, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under 49 U.S.C. section 60105. A stationary source does not include naturally occurring hydrocarbon reservoirs. Properties shall not be considered contiguous solely because of a railroad or pipeline right-of-way.

"Threshold quantity" means the quantity specified for regulated substances pursuant to section 112(r)(5) of the Clean Air Act as amended, listed in § 68.130 and determined to be present at a stationary source as specified in § 68.115 of this part.

"Typical meteorological conditions" means the temperature, wind speed, cloud cover, and atmospheric stability class, prevailing at the site based on data gathered at or near the site or from a local meteorological station.

"Vessel" means any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.

"Worst-case release" means the release of the largest quantity of a regulated substance from a vessel or process line failure that results in the greatest distance to an endpoint defined in § 68.22(a).