

North Coles Levee

Search Criteria Used (More)		
Level of Detail	Extended	GO
Type of Report Output	Text (HTML)	GO

Facility #1 : North Coles Levee

Basic Facility Info ?

Facility ID	100000143141
Deregistered (Yes/No)	No
Facility Name	North Coles Levee
Street Address Line 1	9224 Tupman Road
City	Tupman
State	CA
Zip Code	93276
County	Kern County
113th Congressional District	CA21: California 21
Owner or Operator Name	Inergy Propane, LLC
Parent Company	Inergy Propane, LLC
Latitude	35.280555
Longitude	-119.311943
Number of RMP Submissions	5

#4 -
PCUM - 12/17/2013
CNRW File -
13-1646

Most Recent Submission Info ?

RMP ID	53503
Submission Type	revised submission for facility
Submission Date	01/23/2009
Reason For Submission	Newly regulated substance above TQ in already covered process (40 CFR 68.190(b)(3))
Process Toxic Amount Total (lbs)	37,955
Process Flammable Amount Total (lbs)	117,012,000
Process Amount Total (lbs)	117,049,955
Number of Potential Offsite Consequence Processes	3
Potential Offsite Consequence Toxic Amount Total (lbs)	37,955
Potential Offsite Consequence Flammable Amount Total (lbs)	117,012,000
Potential Offsite Consequence Amount Total (lbs)	117,049,955
All Process NAICS	211112
Exec Summary Submission Date	01/23/2009

Executive Summary ? (Facility #1 : North Coles Levee, executive summary: all)

Executive Summary

Risk Management Plan and California Accidental Release Prevention Program

Executive Summary

Inergy Propane, LLC

Inergy, LP acquired the North Coles Levee Fractionator on October 1, 2003, and is proposing to add a new butane isomerization (butamer) unit to the facility in 2008. The facility is owned and operated by Inergy, LP. Facility operations are covered by the California Occupational Safety and Health Administration's (Cal OSHA) regulations in Title 8, California Code of Regulations (CCR), 5189, Process Safety Management of Acutely Hazardous Materials (PSM). The facility is also subject to the Office of Emergency Service's regulations in Title 19 CCR, 2735, California Accidental Release Prevention Program (CalARP). This is a Federal Risk Management Program (RMP) and CalARP Program Level 3 process.

Inergy installed the Aqueous Ammonia System at the North Coles Levee Facility in July 2005. The Aqueous Ammonia System is regulated by Title 19 California Code of Regulations 2755, CalARP Program. This is a CalARP Level 2 process. The prevention program described below has been implemented.

Inergy installed the Anhydrous Ammonia Refrigeration System at the North Coles Levee Facility in 2008. The Anhydrous Ammonia Refrigeration System is regulated by Title 19 California Code of Regulations 2755 CalARP Program. This is a Cal ARP Level 2 process. The prevention program described below has been implemented.

THE FACILITY AND THE REGULATED SUBSTANCE HANDLED

The facility processes, stores, and transfers natural gas, natural gasoline, propane, and butane. There are 32 tanks with capacities ranging from 4,000 to 44,000

gallons, two tanks with a capacity of 1.3 million gallons, one tank with a capacity of 5 million gallons, and one 15 million gallon storage tank. The worst-case flammable scenario is based upon a release of 15 million gallons of butane.

Total ~ 2.2 million gallons of butane.

The North Coles Levee Fractionator operates 24 hours per day receiving natural gas from surrounding production fields. Natural Gas Liquids (NGL) are recovered from the natural gas through a refrigeration process. The remaining natural gas is sold to Public Utility Commission (PUC) regulated utility companies for home use. NGL's are fractionated into propane, butane, iso-butane, normal butane, and gasoline components for a multitude of industry uses. This facility has the ability to remove hydrogen sulfide that may be present in incoming liquid deliveries. In the summer, the facility receives and stores liquid propane to be used as winter fuel in refrigerated storage tanks.

During 2008, Inergy started construction of a new butane isomerization (butamer) unit at the North Coles Levee Facility for which this updated RMP is being submitted. The butamer converts normal butane (n-butane) into iso-butane. The conversion of n-butane to iso-butane is accomplished catalytically in the presence of hydrogen.

Inergy currently operates a cogeneration unit and is planning to install a new cogeneration unit, both of which utilize a Selective Catalytic Reduction (SCR) System and oxidation catalyst to reduce oxides of Nitrogen (NOx) and carbon monoxide in the exhaust gas. The system utilizes aqueous ammonia, which is mixed in dilution air in a vaporizer tower, vaporized, and directed to the reactor where it is injected upstream of the catalyst bed.

Inergy also utilizes a refrigeration system for the treatment and/or storage of natural gas and natural gas liquids, which contains approximately 950 pounds of anhydrous ammonia. Anhydrous ammonia is used as a refrigerant.

ACCIDENTAL RELEASE PREVENTION PROGRAM

The accidental release prevention program is based on the requirements of Title 40 Code of Federal Regulation, Part 68, and Title 19 CCR 2735 and 2755. The program includes the following elements: Offsite Consequence Analysis, Employee Participation, Process Safety Information, Process Hazard Analysis, Operating Procedures, Training, Contractor Evaluation, Contractors and Visitor Orientation, Pre-job Start-up Review, Mechanical Integrity, Code of Safe Work Practices (Hot Work Permit, Confined Space Entry, Control of Hazardous Energy), Management of Change, Incident Investigation, Emergency Planning and Response, and Compliance Audits. The anhydrous ammonia system has been incorporated into the Plant Process Safety Management Program.

Inergy maintains an emergency response plan in compliance with local emergency response agencies. Inergy has a Hazardous Materials Business Plan on file with the Kern County Environmental Health Services Department, which is the Certified Unified Program Agency for Kern County.

Training includes employee responsibilities in the PSM and CalARP programs, emergency response, hot work permit procedures, code of safe work practices, and operating procedures.

The process maintains mitigation measures consisting of relief valves, check valves, manual shut off valves, automatic shutoffs, startup and operating procedures, grounding equipment, and containment area.

EXTERNAL EVENTS ANALYSIS

The butamer unit and anhydrous ammonia refrigeration system are new processes scheduled to start installation in 2008 as part of an expansion of the North Coles Levee Facility. An earthquake is a possible external event at the facility. This facility resides outside the boundaries and contours of a Near-Source Fault Zone according to the document "Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada," published by the International Conference of Building Officials (ICBO).

In May 1999 an external events analysis consisting of a preliminary seismic walkthrough was conducted. This walkthrough was comprised of a visual inspection of the above grade process piping and vessels. The references used for the 1999 walkthrough were the following:

API Standard 570 Pressure Vessel Inspection Code: Maintenance Inspection, Rating Repair, and Alteration.

Processes Unlimited International, Inc; Engineered Safety Section, CalARP Seismic Assessment Procedure, April 12, 1999.

Uniform Building Code, 1997 Edition, International Conference of Building Officials.

ACCIDENTAL RELEASE PREVENTION AND EMERGENCY RESPONSE POLICY

An accidental release prevention and emergency response policy have been established by Inergy management and implemented by the employees. In the event of an accidental release, the facility operators are trained to shut off the source from a safe location or activate one of the emergency shutdown devices, contact 911 and secure the area. The 911 system is used to notify the Fire Department.

EMERGENCY RESPONSE PROGRAM

Inergy maintains an emergency response plan in compliance with local emergency response agencies. The North Coles Levee Facility has a Hazardous Materials Business Plan on file with the Kern County Environmental Health Services Department, the Certified Unified Program Agency for Kern County.

FIVE YEAR ACCIDENT HISTORY

Based on the criteria set forth in Title 19 CCR 2735.4, this facility has not had an accidental release. This information was verified by the reviewing of records from the Kern County Environmental Health Services Department.

PLANNED CHANGES TO IMPROVE SAFETY

Planned changes to improve safety have been established based on process safety management audits and the process hazard analysis.

WORST CASE SCENARIO

Two worst-case scenarios were modeled based on the materials being utilized and the process program levels (2 and 3):

The toxic worst-case scenario used aqueous ammonia as the modeled substance. The worst-case release of 37,000 pounds of anhydrous ammonia indicates a toxic endpoint distance of 1.4 miles. This distance does not impact any public receptors. The passive mitigation considered for this analysis includes enclosures and berms. This scenario is based upon the RMP Comp Version 1.07 software.

~~The flammables worst-case scenario used butane as the modeled substance. The worst-case release of 73,000,000 pounds of butane indicates a 1 psi overpressure endpoint distance of 3.36 miles. Based on LandView 6 Population Estimator, this distance impacts public receptors in the form of 81 housing units and 239 residents. This scenario uses EPA's OCA Guidance Reference Tables or Equations model C-2, "Equations for Estimation of Distance to 1 psi Overpressure for Vapor Cloud Explosions."~~

ALTERNATE RELEASE SCENARIO

Three alternate release scenarios were modeled based on the materials being utilized and the process program levels (2 and 3):

The first toxic alternate release scenario used anhydrous ammonia as the modeled substance. The alternate release scenario of 60 pounds of anhydrous

BLAST RADIUS
3.36 MILES
WORST CASE SCENARIO

ammonia indicates a toxic endpoint distance of 0.1 miles. This distance does not impact any public receptors. There were no allowances for passive mitigation in the worst-case scenario distance model. This scenario is based upon RMP Comp Version 1.07 software.

The second toxic alternate release scenario used aqueous ammonia as the modeled substance. The alternate release scenario of 7,400 pounds of aqueous ammonia at a release rate of 148 lbs/min indicates a toxic endpoint distance of 0.3 miles. This distance does not impact any public receptors. The allowance used for passive mitigation was a drain located in close proximity to the aqueous ammonia system. This scenario is based upon the RMP Comp Version 1.07 software.

The flammables alternate release scenario used butane as the modeled substance. The alternate release scenario of 60 pounds of butane, resulting from a break in a transfer hose connection, indicates a 1 psi overpressure endpoint distance of 0.03 miles (reportable as 0.10 miles). This distance does not impact any public receptors. This scenario uses EPA's OCA Guidance Reference Tables or Equations model C-2, "Equations for Estimation of DI stance to 1 psi Overpressure for Vapor Cloud Explosions."

MANAGEMENT COMMITMENT

Inergy has a commitment to employee and public safety. This commitment is demonstrated by maintaining the implementation of the process safety requirements already in place. Furthermore, the resources invested in accident prevention, such as training personnel and considering safety in design during construction and installation, is an investment in good business practices. Inergy's policy is to implement reasonable controls to prevent foreseeable releases. However, if a release does occur, trained personnel will respond to control and contain the release.

Submission - Other Facility Info

Number of Full Time Employees	50
Owner or Operator Name	Inergy Propane, LLC
Owner or Operator Address Line 1	PO Box 430
Owner or Operator City	Tupman
Owner or Operator State	CA
Owner or Operator Zip	93276
Parent Dun and Bradstreet Number	0
Second Parent Dun and Bradstreet Number	0
Number of Full Time Employees	50
Number of FTE CBI Flag	No
Covered by OSHA PSM Standard	Yes
Covered by EPCRA Section 302	Yes
Covered by CAA Title V	No
Last Safety Inspection Date	01/24/2008
Last Safety Inspection By	County Env. Agency
OSHA Star or Merit Ranking	No
LEPC Name	Region 5 LEPC Inland South

Submission - Contact Info (Facility #1 : North Coles Levee, RMP submission #1 : 2009-01-23)

Owner or Operator Phone	6617654087
Facility Phone	6617654087
Facility Dun and Bradstreet Number	54331868
RMP Contact	Scott Jones
RMP Contact Title	Plant Manager
RMP Contact Email	sjones@inergyservices.com
RMP Preparer Name	EnviroTech Consultants, Inc.
RMP Preparer Address Line 1	5400 Rosedale Highway
RMP Preparer City	Bakersfield
RMP Preparer State	CA
RMP Preparer Zip	93308
RMP Preparer Phone	6616350465

Submission - Additional Info

RMP Complete Flag	Yes
Predictive Filing	No
No RMP Accidents Last 5 Years	Yes

Name of Respondent Plains LPG Services, LP	This Report Is: (1) <input type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr) 04/15/20	Year/Period of Report End of 2012/Q4
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Receivables from Affiliated Companies

1.) Give particulars (details) of the various affiliated company debtors and the character of the transactions involved in the current asset Account No. 13, Receivables from Affiliated Companies.
 2.) In column (a), list every item amounting to \$500,000 or more. For debtors whose balances were less than \$500,000, a single entry may be made under a caption "Minor accounts, less than \$500,000."

Line No.	Name of Debtor (a)	Description of Assets or of Transaction (b)	Balance at End of Year (in dollars) (c)
1	Lone Star Trucking, LLC	Trade activities	44,700
2	Rancho LPG Holdings LLC	Trade activities	49,813,448
3	Plains Marketing, L.P.	Operating and trade activities	106,441,087
4	Plains Midstream Superior, LLC	Trade activities	678,772
5	Plains Pipeline, L.P.	Trade Activities	10,593,448
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49		Total	167,371,455

#4
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DEBT OWED BY
 DAREN (49 million)
 TO PLAINS LPG
 SERVICES, LP

PART OF FIRM-LIKE BUSINESS
 STRUCTURE TO SOLICIT
 CREDIT ON PLUM WHILE
 REALIZING GAINS

SAYS THAT
 DAREN INSTEAD AS SOME
 CONCERN BECAUSE PROPERTY
 WITH FAR LESS THAN
 \$49 million

Name of Respondent Plains LPG Services, LP	This Report Is: (1) <input type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr) 04/15/20	Year/Period of Report End of 2012/Q4
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Companies Controlled by Respondent

- 1.) Report in column (a) the names and state of incorporation of all corporations, partnerships, and similar organizations controlled (see page iii for definition of control) directly by respondent at end of year.
 2.) If control is held jointly with one or more other interests, state the fact in a footnote and name the other interests.

Line No.	Name of Company Controlled (a)	Kind of Business (b)	Percent Voting Stock Owned (c)
1	Lone Star Trucking, LLC		100.00
2	Rancho LPG Holdings LLC		100.00
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#4 - PLUM -
12/17/2013
CANNON FILE #
13-1646.

Forwarded message -----

From: **Secretary, ACS Division of Chemical Health and Safety**

<secretary@dchas.org>

Date: Tue, Dec 17, 2013 at 5:06 AM

Subject: [SAFETY2] CSB Draft Report Proposes Overhaul of Refinery Industry Regulatory System in California

To: SAFETY2@lists.asu.edu

In Wake of Chevron 2012 Pipe Rupture and Fire in Bay Area Q and Urges Adoption of the Safety Case Regime to Prevent Major Chemical Accidents

Richmond, California, December 16, 2013 - In a draft report released to the public today, the U.S. Chemical Safety Board (CSB) proposes recommendations for substantial changes to the way refineries are regulated in California. Entitled "Regulatory Report: Chevron Richmond Refinery Pipe Rupture and Fire," the CSB draft calls on California to replace the current patchwork of largely reactive and activity-based regulations with a more rigorous, performance-based regulatory regime - similar to those successfully adopted overseas in regions such as the United Kingdom, Norway, and Australia - known as the "safety case" system.

LINK TO REPORT: <http://www.idevmail.net/link.aspx?l=3&d=86&mid=414620&m=1280>

The draft report is the second part of three in the CSB's investigation of the August 2012 process fire in the crude unit at the Chevron refinery in Richmond, California. That fire endangered 19 workers and sent more than 15,000 residents to the hospital for medical attention.

CSB Chairperson Dr. Rafael Moure-Eraso said, "After exhaustively analyzing the facts, the CSB investigation team found many ways that major refinery accidents like the Chevron fire could be made less likely by improving regulations. Refinery safety rules need to focus on driving down risk to the lowest practicable level, rather than completing required paperwork. Companies, workers, and communities will all benefit from a rigorous system like the safety case. I believe California could serve as a model for the nation by adopting this system. We applaud the work of the Governor's Interagency Task Force for their proactive approach and highly positive recommendations to protect worker and public safety in California. I have great confidence that California will embrace the recommendations in our draft report and carry them forward to implement policy change."

The draft report is available at www.csb.gov for public comment until Friday, January 3, 2014. Comments should be sent to chevroncomments@csb.gov. All comments received will be reviewed and published on the CSB website.

As detailed in the CSB draft report, the safety case regime requires companies to demonstrate to refinery industry regulators - through a written "safety case report" - how major hazards are to be controlled and risks reduced to "as low as reasonably practicable," or ALARP. The CSB report notes that the safety case is more than a written document; rather, **it represents a fundamental change by shifting the responsibility for continuous reductions in major accident risks from regulators to the company.**

To ensure that a facility's safety goals and programs are accomplished, a safety case report generated by the company is rigorously reviewed, audited, and enforced by highly trained regulatory inspectors, whose technical training and experience are on par with the personnel employed by the companies they oversee, the draft report says.

The draft report - which is expected to be considered for formal adoption by the Board at a public meeting at 6:30 p.m. on January 15, 2014, at Richmond City Hall - follows the CSB's first, interim report on the accident, which was approved by the Board and released in April 2013. That report found that Chevron repeatedly failed over a ten-year period to apply inherently safer design principles and upgrade piping in its crude oil processing unit, which was extremely corroded and ultimately ruptured on August 6, 2012. The interim report identified **missed opportunities** on the part of Chevron to apply inherently safer piping design through the use of more corrosion-resistant metal alloys. The interim report also found a failure by Chevron to identify and evaluate damage mechanism hazards, which if acted upon, would likely have identified the possibility of a catastrophic sulfidation corrosion-related piping failure. There are currently no federal or state regulatory requirements to apply these important preventative measures. The investigation team concluded that enhanced regulatory oversight with greater worker involvement and public participation are needed to improve petroleum refinery safety.

The draft CSB Chevron Regulatory report released today states there is a considerable problem with significant and deadly incidents at petroleum refineries over the last decade. In 2012 alone, the CSB tracked 125 significant process safety incidents at U.S. petroleum refineries. Seventeen of these took place in California. The draft report also notes that the U.S. has experienced financial losses from refinery incidents that are at least three times that of industry counterparts in other countries, citing insurance industry statistics.

The existing California system of regulation can be significantly improved, the report concludes. Since 2010, the CSB has examined the extent to which a safety case regime would improve regulatory compliance and better prevent major accidents, both onshore and offshore. The safety case regime, which originated in Europe, requires high hazard facilities to demonstrate, to the satisfaction of a

competent regulator, that they are able to operate safely, in conformance with the latest safety standards, and at the lowest practicable risk levels. The report illustrates that under a safety case approach, demonstrating control of major hazards is a pre-condition for a refinery to operate.

Dr. Rafael Moure-Eraso said, "In contrast to the safety case, the current regulatory system for process safety is largely reactive, at both the state and federal level; companies have a default right to operate, and are subject to penalties when accidents occur or their activities otherwise draw negative attention from regulators. In the case of the Chevron refinery fire, the reactive system of regulation simply did not work to prevent what was ultimately a preventable accident."

Don Holmstrom, Director of the CSB's Western Regional Office, which is conducting the Chevron investigation, said, "The Process Safety Management [PSM] standard, the EPA's Risk Management Program, and California's system do not work consistently to prevent industrial process accidents. What is lacking, and what the safety case regime requires, is an adaptable, rigorously inspected, goal-setting approach, aimed at continuously reducing risks to "as low as reasonably practicable - known in the industry as ALARP."

The OSHA PSM standard is a set of requirements for facilities to identify, prevent or mitigate major chemical releases and catastrophic accidents. The current PSM standard requires companies to implement 14 elements to control the hazards from processing chemicals - such as hazard analysis, management of change, and worker training programs.

Only two of these 14 elements contain goal-based requirements - Process Hazard Analysis and Mechanical Integrity. Companies are able to comply with the other twelve elements by simply conducting highly specified activities, such as a "management of change" review. The current PSM standard does not require refineries to reduce their risks to a specific level, and companies are not required to submit their safety programs to regulators for review.

A 2007 CSB report on an explosion at a BP refinery in Texas found that only a handful of comprehensive process safety compliance inspections were occurring at thousands of refineries and chemical plants covered by the PSM standard across the U.S. Federal OSHA instituted an expanded refinery inspection National Emphasis Program following the explosion in Texas City, but that program was subsequently dropped due to lack of resources.

The CSB draft regulatory report contains an extensive analysis comparing actions required by Chevron under the OSHA PSM standard over the years and actions that would have been required had Chevron operated under a safety case regulatory

regime. For example, Chevron employees recommended implementing the inherently safer approach of upgrading piping materials to prevent sulfidation corrosion through PSM activities. However, the CSB draft report found that the California process safety regulations do not require that these preventative measures be implemented. Prior to the fire, Chevron had repeatedly failed to implement the proposed recommendations; using inherently safer approaches, on the other hand, is required under the safety case. The CSB found that had Chevron implemented these recommendations, the incident could have been prevented.

Other examples in the report detail how a safety case would have required Chevron to conduct root-cause investigations, including an evaluation and incorporation of inherent safety and implementation of safety recommendations that more broadly address safety system performance. Effective implementation of the safety case requires strong workforce involvement, proactive inspections and enforcement by a well-resourced regulator, as well as incorporation of best practice performance standard requirements.

The draft report notes that promulgation of new standards by OSHA requires about seven years, and that process has made few - if any - changes to its process safety rules in more than two decades. The report contrasts this ineffectual system for updating federal safety regulations through rulemaking with the greater adaptability of the safety case regime. Under a safety case system, changing safety standards, new technologies, and findings from accident investigations are required to be incorporated by facilities.

"In the last decade," the draft report states, "the CSB has made a number of process-safety related recommendations to OSHA and the EPA in its investigation reports and studies (e.g. Motiva, BP Texas City, and Reactive Hazards). However, none of these important regulatory recommendations have been implemented, and there have been no substantive changes made to the PSM or RMP regulations to improve the prevention of major accidents."

In contrast, regulators in countries such as the UK and Norway are able to more quickly implement appropriate safety improvements. Available studies summarized in the report illustrate that the safety case continues to be effective. For example, data from Norway and the UK show a reduction in hydrocarbon releases offshore under the safety case regime. The draft report concludes that "Independent studies of the safety case in the UK have identified improvements to safety performance from the safety case regulatory regime and support of the safety case by major oil companies."

Chairperson Moure-Eraso said, "*The safety case is being increasingly adopted around the world, and the U.S. safety system has fallen behind.* Workers, the public and the industry itself would benefit greatly from the enhanced advantages of this more adaptable and effective approach to regulation. Other regimes have long since

recognized the need for increased participation by workers and their representatives, transparency of information and the use of key process safety indicators to ensure the system works to prevent major accidents."

Subject to a vote by the board, the draft report would recommend that California "Develop and implement a step-by-step plan to establish a more rigorous safety management regulatory framework for petroleum refineries in the state of California based on the principles of the "safety case" framework in use in regulatory regimes such as those in the UK, Australia, and Norway." The recommendation urges specific steps to accomplish this, including ensuring that workers are formally involved in the development of a safety case approach. The report also urges California to work with industry in gathering refinery safety indicator data to be shared with the public.

CSB Investigator Amanda Johnson said, "We believe our draft report provides a definitive examination of the advantages of the safety case system, one that would not only benefit California but the U.S. as well."

Ms. Johnson continued, "We have reviewed the literature, studied systems in place overseas, and held hearings to gather data and opinions. Some critics of the system fear it would lead to self regulation; by the industry; however, the safety case regime requires highly qualified regulators, whose technical abilities and experience match those of the technical staff at refineries. And it provides the regulator with the authority to accept or reject the safety case report to ensure that the employer has demonstrated that effective safeguards are in place."

The CSB is an independent federal agency charged with investigating serious chemical accidents. The agency's board members are appointed by the president and confirmed by the Senate. CSB investigations look into all aspects of chemical accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management systems.

The Board does not issue citations or fines but does make safety recommendations to plants, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Visit our website, www.csb.gov
<http://www.idevmail.net/link.aspx?l=4&d=86&mid=414620&m=1280>

For more information, contact Communications Manager Hillary Cohen, cell 202-446-8094 or Sandy Gilmour, Public Affairs, cell 202-251-5496.

This e-mail is from the SAFETY2@asu.edu list.

Archives of list discussions can be found at <http://lists.asu.edu/archives/safety2.html>