MAY 24 2013

UNITED STATES DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

The Lite Cylinder Company	)	Emergency Order No. 2013-002
139 Southeast Parkway Court	)	
Franklin, TN 37064	)	Docket # PHMSA-2013-0123

EMERGENCY RECALL ORDER

This notice constitutes an Emergency Recall Order by the United States Department of Transportation (DOT) pursuant to 49 U.S.C. § 5121(d) and 49 CFR §109.17(c); and pursuant to delegation of authority to the Associate Administrator, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Hazardous Materials Safety. By this Order, PHMSA is mandating a recall of all cylinders manufactured by The Lite Cylinder Company, Inc. (Lite Cylinder) and marked as authorized under DOT-SP 14562 (and DOT-SP-13957 as authorized therein), DOT-SP 13105; any cylinder requalified under H706; and any cylinders manufactured under M5729 (hereinafter referred to as affected packaging(s)). In addition, this order applies to any person who is in possession of an affected packaging subject to this order.

PHMSA finds that the affected packagings constitute or are causing an imminent hazard to public safety. For more detailed information see "Background/Basis for Order" below.

THIS ORDER APPLIES TO:

1) Lite Cylinder, its officers, directors, employees, subcontractors, investors and agents ("Lite Cylinder"); and
2) Any person who is in possession of an affected packaging, including any officers, directors, employees, subcontractors, investors, and agents of said person (for purposes of this Order, "Cylinder Owners").

Under no circumstances should a cylinder described in this emergency recall order be filled, refilled, or used for the transportation of hazardous materials.

EFFECTIVE IMMEDIATELY, LITE CYLINDER MUST:

1) Contact all Cylinder Owners to whom affected packagings have been sold and inform them of the Emergency Recall Order and provide them the proper and necessary instruction and information for the safe handling and discharge of hazardous material and for the return shipment of cylinders no later than five business days of this Order. The information must include instruction that directs Cylinder Owners to use only qualified persons, trained in handling cylinders in accordance with Federal regulations, and to safely discharge, purge, and remove the valve from, the cylinder.
2) Confirm that the returned cylinders are purged and emptied.
3) Ensure that the purged and empty cylinders are returned to the manufacturer at the following address: The Lite Cylinder Company, 139 Southeast Parkway Court, Franklin, TN 37064.
4) Provide by email the serial number of each returned cylinder to PHMSA at specialpermits@dot.gov (referencing "Lite Cylinder" in the subject line) by the close

of business daily. Please note any problems that may have been witnessed with the cylinder (e.g. leakage, damage, etc.).

5) Permanently obliterate the special permit specification markings and render them incapable of holding pressure within five business days of possession, including those in inventory.

PHMSA URGENTLY ADVISES CYLINDER OWNERS TO:

1) Take proper safeguards in identifying and handling the affected packagings identified in this Order,
2) Use the instruction and information provided by Lite Cylinder for the safe handling and discharge of hazardous material and for the return shipment of cylinders. This information will guide Cylinder Owners to use only qualified persons, trained in handling cylinders in accordance with Federal regulations, and to safely discharge, purge, and remove the valve from, the cylinder.
3) Return the purged and empty cylinders to the manufacturer at the following address: The Lite Cylinder Company, 139 Southeast Parkway Court, Franklin, TN 37064.

This Order is effective immediately and remains in effect unless withdrawn in writing by the Associate Administrator or his designee, or until it otherwise expires by operation of law.

INFORMATION GATHERING:

Any person who is aware of a failure or incident relating to any cylinder marked DOT-SP 14562, DOT-SP-13957, DOT-SP 13105; any cylinder requalified under H706; and other cylinder manufactured under M5729 is requested to contact PHMSA, as instructed in the Emergency Contact Official section below, as soon as possible. PHMSA requests information on all cylinders made under the foregoing special permits and approvals, which include 10-pound, 20-pound, 25-pound and 33-pound cylinders,

Jurisdiction

Lite Cylinder manufactures or has manufactured, marked, certified and sold composite cylinders as meeting DOT-SP 14562, DOT-SP 13957, and DOT-SP-13105; performed cylinder requalification under approval H706; and manufactured cylinders under Registration Number M5729, which are used to transport hazardous materials within the United States and therefore is a "person," as defined by 49 U.S.C. § 5102(9), and, a "person" under 1 U.S.C. § 1. Accordingly, Lite Cylinder, or any person in possession of an affected packaging, is subject to the authority and jurisdiction of the Associate Administrator, including the authority to impose emergency restrictions, prohibitions, recalls, or out-of-service orders, without notice or an opportunity for hearing, to the extent necessary to abate the imminent hazard (49 U.S.C. § 5121(d)).

Background/Basis for Order

On October 10, 2012, PHMSA suspended Lite Cylinder's special permits DOT-SP 14562, (and DOT-SP 13957 as authorized therein), and DOT-SP 13105, cylinder requalification approval H706 and manufacturer's Registration Number approval M5729, and proposed termination of the above approvals and special permits unless Lite Cylinder could show cause why such action should not be taken. Concurrent with this action today, PHMSA has terminated the above special permits and approvals for cylinder requalification, and manufacturer's

Registration Numbers. Upon reliable and credible information received in the course of investigations, PHMSA has learned that Lite Cylinder has:

1. **Failed to notify the Associate Administrator for Hazardous Materials Safety, in writing, of incidents involving DOT-SP 14562 cylinder failures, as required by DOT-SP 14562, Paragraph 12.**

   Paragraph 12 of DOT-SP 14562 requires the grantee to notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package (including a cylinder failure), shipment or operation conducted under the terms of the special permit. PHMSA discovered that Lite Cylinder failed to report three cylinder failures in service and one cylinder failure during production testing, in violation of DOT-SP 14562. PHMSA obtained (1) a copy of a settlement agreement Lite Cylinder entered into with Robert Nicholson on January 20, 2012 after a DOT-SP 14562 cylinder ruptured and damaged a gas grill in New Jersey, which Lite Cylinder's owner admitted was a result of a flaw in the seam, (2) signed employee statements regarding an injury to an Independent Inspection Authority (IIA) employee during a low pressure test at Lite Cylinder's facility, and (3) a report from Freudenberg Texbond regarding a cylinder that separated at their Macon, Georgia facility on September 7, 2012. Lite Cylinder employees also described a cylinder failure that injured several people in the Dominican Republic, which involved 33-pound DOT-SP 13957 cylinders.

   In addition to the failures described above, PHMSA discovered that, from January 14, 2009 to September 25, 2012, approximately 19 cylinder owners had returned

DOT-SP 14652 cylinders due to sidewall or bottom leaks. Lite Cylinder documented most of these returns in their complaint log, but failed to report them to PHMSA.

2. **Failed to comply with PHMSA Notice of Suspension dated May 10, 2007, which required Lite Cylinder to cease the sales of all DOT-SP 13957 cylinders.**

   On May 10, 2007, the PHMSA issued a Notice of Suspension of DOT-SP 13957, which prohibited the manufacture and continued use of 33-pound DOT-SP 13957 cylinders. PHMSA's investigators obtained an Invoice # 2070, dated July 17, 2008, which shows that Lite Cylinder sold and shipped one thousand cylinders to Cocigas SA in Canabacos, Santiago Dominican Republic. The invoice listed the cylinders as "33# Composite Lite Cylinder Complete" and provided instructions on how to obtain a copy of DOT-SP 14562, the special permit that PHMSA issued which allowed resumed use of 10 pound and 20 pound DOT-SP 13957 cylinder under the authority of DOT-SP 14562 without remarking. Several Lite Cylinder employees, including Mr. Reifschneider, Lite Cylinder's President, provided signed statements saying that the cylinders sold to Cocigas were manufactured under DOT-SP 13957. Furthermore, PHMSA has obtained photographs showing that cylinders sold to Cocigas remained marked as DOT-SP cylinders. According to the statements, one of these cylinders subsequently failed during transportation and injured several occupants of the transport vehicle.

3. **Failed to test DOT-SP 14562 cylinders at the minimum test pressure of 480 psi as required by Paragraph 7.a.1 of the Fifth Revision issued on October 19, 2011.**

   On October 19, 2011, PHMSA granted Lite Cylinder's request for a 5th Revision to DOT-SP 14562, which increased the maximum service pressure for these cylinders to 320 psi and the minimum test pressure to 480 psi. Lite Cylinder's manufacturer's reports to PHMSA indicate that it has tested 11,416 DOT-SP 14562 cylinders at 441 psi since the 5th Revision became effective on October 19, 2011.

4. **Failed to conduct cycle and burst testing at random intervals, as required by DOT-SP 14562, Paragraphs 7.a.10.ii - .iii.**

   DOT-SP 14562 requires cycle testing for one cylinder taken at random from each group of 1000 cylinders, and burst testing for one cylinder taken at random from each run of 200 cylinders or less. Lite Cylinder's records show that the company conducted all of the required cycle and burst tests at the beginning of each lot manufacturing process, rather than taking random samples.

5. **Failed to manufacture DOT-SP 14562 cylinders in accordance with the Quality Systems Manual (QSM) on file with PHMSA's Permits and Approvals Division, as required by Paragraph 7.a of DOT-SP 14562.**

   PHMSA's review of Lite Cylinder's manufacturing records show that the company failed to follow the requirements of the QSM on file with PHMSA. Specifically, Lite Cylinder:

- Continued manufacturing DOT-SP 14562 cylinders after puck tests failed to meet the required hardness test limits;
- Failed to perform and document grinding wheel adjustments and inspections to ensure that the joiner was properly aligned and operating as required; and
- Failed to perform burst testing following a cylinder failure during the manufacturing process.

6. **Failed to notify PHMSA of changes to its QSM as required by Paragraph 7.a of DOT-SP 14562.**

   DOT-SP 14562 required Lite Cylinder to manufacture cylinders in accordance with the QSM on file with PHMSA, and to provide written notice to PHMSA of any changes to the QSM. Lite Cylinder made significant changes to its QSM on February 14, 2008 (e.g. puck testing procedures, joiner maintenance requirements, resin and hardener flow metering), but never submitted the revisions to PHMSA.

7. **Marked and sold "DOT-SP 14562" cylinders that were not designed and manufactured in conformance with TLCCI drawings D10DOT, D10DOTAS, D20DOT, D20DOTAS, DOT 33-100-D0001, DOT 33-100-D0002, DOT 33-100-D0003, DOT 33-D0004 on file with PHMSA's Office of Hazardous Materials Safety – Approvals and Permits as required by Paragraph 7.a of DOT-SP 14562.**

   On May 17, 2013, PHMSA discovered that a prototype cylinder manufactured by Lite Cylinder had separated circumferentially while in service powering a lawn mower. Upon further investigation, PHMSA discovered that Lite Cylinder had

sold 40 similar cylinders marked as "DOT-SP 14562" to Onyx, a retailer in Stanley, North Carolina. On May 22, 2013, PHMSA obtained samples of the 29 composite cylinders delivered to Onyx, which included 20 pound, 2-hole cylinders, and discovered that the serial numbers for the sample cylinders corresponded to a 2-hole design classified as "DC20 2 Hole" in Lite Cylinder's master list of cylinders manufactured since 2007. There is no approved design drawing on file with PHMSA authorizing the 20 pound, 2-hole design. PHMSA also obtained cylinders from Mesa, Arizona with a 10 pound, 3-hole design, that were marked "DOT-SP 14562." There is no approved design drawing on file with PHMSA authorizing a 10 pound, 3-hole design. Based on this evidence, PHMSA finds that Lite Cylinder marked, sold and offered for transportation unapproved cylinders in violation of Paragraph 7.a of DOT-SP 14562. This further demonstrates Lite Cylinder's pattern of making unilateral changes to its manufacturing process, quality control oversight, and cylinder designs without first seeking PHMSA's approval.

Additional Unsafe Conditions and Practices

During the September 28, 2012 inspection, PHMSA noted several equipment issues related to Lite Cylinder's production process. Lite Cylinder had installed an alarm and automatic shutdown device to stop manufacturing if the hardening catalyst required to chemically weld the cylinder seams was not being properly added during the gluing process. Several Lite Cylinder employees provided statements that the alarm and automatic shutdown process had never

functioned as designed, and indicated that the shutdown device had not stopped the manufacturing process when it should have detected insufficient hardening catalyst.

PHMSA is also concerned about the increasing failure rate that Lite Cylinder's test reports indicate for DOT-SP 14562 cylinders. PHMSA's investigation revealed that in 2009, DOT-SP cylinders had a failure rate of 4%. From 2009-2012, that failure rate has doubled to 9.4%. This failure rate may have been even higher from October 19, 2011 to present if Lite Cylinder had been testing at 480 psi, as required by DOT-SP 14562, rather than the 441 psi at which they were testing. This trend toward higher failure rates has given PHMSA serious concerns regarding the safety of cylinders manufactured by Lite Cylinder. The following table summarizes failure rates by year and cylinder volume:

Failure Rates for DOT-SP 14562 Cylinders				
	2009	2010	2011	2012
10 lb	4%	6%	7%	7%
20 lb	1%	5%	14%	9%
25 lb	5%	3%	2%	N/A
33 lb	N/A	65%	16%	36%
Overall	4%	7%	11%	9.4%

At the time of the suspension and proposal to terminate on October 10, 2012, Lite Cylinder had approximately 1,952 cylinders that were manufactured and marked prior to October 9, 2012. The company requested permission to sell these cylinders. To evaluate the level of safety of the cylinders and the approximately 55,000 currently in service, PHMSA developed a testing protocol (Test Plan) to determine whether these cylinders met the prescribed designs and

the minimum safety level. The Test Plan mandated pressure testing of each cylinder, and sample ambient cycle testing and environmental cycle testing of cylinders from each of the manufacturing lots represented. Cylinders subjected to the cycle tests were then put through the hydrostatic pressure test to burst.

Each cylinder was also subjected to a pneumatic pressure test at test pressure (1.5 x service pressure), followed by a pneumatic leak pressure test conducted at service pressure in a water bath. During the leak pressure test, leaks can be detected by bubbles leaving the cylinder. The leak pressure test ensures that the cylinder will not leak hazardous materials at the maximum charge pressure it will experience in service.

Of the 1,952 cylinders that Lite Cylinder had on hand, PHMSA concluded that approximately 804 were not manufactured in accordance with the hardness "puck test" requirements of DOT-SP 14562 and excluded these from testing. Of the 1,148 remaining cylinders that Lite Cylinder certified as meeting the special permit requirements, 53 leaked during the pneumatic leak pressure testing, demonstrating a failure rate of approximately 4.6%in violation of the requirements of DOT-SP 14562 and the QSM. These cylinders were previously tested during the manufacturing process, and Lite Cylinder certified them as meeting all requirements of the special permit. Therefore, the entire sample should have been leak-free.

PHMSA believes that the cylinders previously sold by Lite Cylinder, although tested during the manufacturing process, may also exhibit leakage in service. These cylinders are commonly used to contain flammable gas. PHMSA considers the risk of fire due to leaking DOT-SP 14562 cylinders containing flammable gas to be unacceptable. In order to avoid potential injury or damage, PHMSA is removing from service all DOT-SP 14562 cylinders.

Finding of Imminent Hazard

Based on the foregoing, PHMSA finds that (1) Lite Cylinder marked and sold "DOT-SP 14562" cylinders that were not designed and manufactured in conformance with approved design drawings on file with PHMSA, (2) DOT-SP 14562 cylinders have been involved in unreported cylinder failures resulting in at least one serious injury and property damage, (3) Lite Cylinder has failed to conduct required testing, maintain quality control procedures, and exhibited an increasing failure rate in its manufacture of DOT-SP 14562 cylinders, (4) Lite Cylinder has failed to detect and condemn leaking cylinders during its manufacturing process and has marked and offered leaking cylinders for transportation in commerce. Therefore, the forgoing violations and unsafe conditions and practices are presenting a substantial likelihood of severe personal injury or a substantial endangerment to health, property or the environment and constitute or are causing an imminent hazard to the public safety.

Remedial Action

In order to avoid any potential injury or damage, PHMSA is requiring the removal from service of all affected packagings. Effective immediately, Lite Cylinder must:

1) Contact all Cylinder Owners to whom affected packagings have been sold and inform them of the Emergency Recall Order and provide them the proper and necessary instruction and information for the safe handling and discharge of hazardous material and for the return shipment of cylinders no later than five business days of this Order. The information must include instruction that directs Cylinder Owners to use only qualified persons, trained in handling cylinders in accordance with Federal regulations, and to safely discharge, purge, and remove the valve from, the cylinder.
2) Confirm that the returned cylinders are purged and emptied.

3) Ensure that the purged and empty cylinders are returned to the manufacturer at the following address: The Lite Cylinder Company, 139 Southeast Parkway Court, Franklin, TN 37064.

4) Provide by email the serial number of each returned cylinder to PHMSA at specialpermits@dot.gov (referencing "Lite Cylinder" in the subject line) by the close of business daily. Please note any problems that may have been witnessed with the cylinder (e.g. leakage, damage, etc.).

5) Permanently obliterate the special permit specification markings and render them incapable of holding pressure within five business days of possession, including those in inventory.

Information Gathering

Any person who is aware of a failure or incident relating to any cylinder marked DOT-SP 14562, DOT-SP-13957, DOT-SP 13105; any cylinder requalified under H706; and other cylinder manufactured under M5729 is requested to contact PHMSA, as instructed in the Emergency Contact Official section below, as soon as possible. PHMSA requests information on all cylinders made under the foregoing special permits and approvals, which include 10-pound, 20-pound, 25-pound and 33-pound cylinders,

Rescission of this Order

Before this order can be rescinded, Lite Cylinder must be able to demonstrate adequately to the Associate Administrator that you have taken actions to remedy the unsafe conditions and practices and that such actions taken have, in fact, resulted in an imminent hazard no longer

existing. If Lite Cylinder is able to make such a demonstration, the Associate Administrator will issue a Rescission Order

Failure to Comply

Any person failing to comply with this Emergency Recall Order is subject to civil penalties of up to $175,000 for each violation or for each day they are found to be in violation (49 U.S.C. §5123). A person violating this Emergency Recall Order is also subject to criminal prosecution, which may result in fines under title 18, imprisonment of up to ten years, or both (49 U.S.C. § 5124)

Right to Review

Any person to whom the Associate Administrator has issued an Emergency Recall Order is entitled to review of the order pursuant to 49 U.S.C. § 5121(d)(3) and in accordance with section 554 of the Administrative Procedure Act (APA), 5 U.S.C. §§ 500 *et seq*. Any petition seeking relief must be filed within 20 calendar days of the date of this order (49 U.S.C. § 5121 (d)(3)), and include one copy addressed to the Chief Safety Officer (CSO) for the Pipeline and Hazardous Materials Safety Administration, United States Department of Transportation, 1200 New Jersey Avenue, S.E., Washington DC 20590-0001 (ATTENTION: Office of Chief Counsel) (electronically to PHMSACHIEFCOUNSEL@DOT.GOV) and one copy addressed to U.S. DOT Dockets, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Room W12-140, Washington, DC 20590 (http://Regulations.gov under Docket # PHMSA-2013-0123). Furthermore, a petition for review must state the material facts at issue which the petitioner believes dispute the existence of an imminent hazard and must include all evidence and exhibits to be considered. The petition must also state the relief sought. Within 30 days from the date the petition for review is filed, the CSO must approve or deny the relief in writing; or find that the

imminent hazard continues to exist, and extend the original Emergency Recall Order. In response to a petition for review, the CSO may grant the requested relief in whole or in part; or may order other relief as justice may require (including the immediate assignment of the case to the Office of Hearings for a formal hearing on the record).

In order to request a formal hearing in accordance with 5 U.S.C. § 554, the petition must state that a formal hearing is requested, and must identify the material facts in dispute giving rise to the request for a hearing. A petition which requests a formal hearing must include an additional copy addressed to the Chief Administrative Law Judge, U.S. Department of Transportation, Office of Hearings, M-20, Room E12-320, 1200 New Jersey Avenue, SE, Washington, DC 20590 (FAX: (202) 366-7536).

Emergency Contact Official

If you have any questions concerning this Emergency Restriction/Prohibition Order you should contact John Heneghan, Regional Director, at (404) 832-1140, john.heneghan@dot.gov , or 233 Peachtree Street, Suite 602, Atlanta, GA 30303 or Aaron Mitchell, Director Field Services Support, at (202) 366-4455, aaron.mitchell@dot.gov or 1200 New Jersey Avenue, S.E., Washington, DC 20590.

Dated: 5/24/2013

Dr. Magdy El-Sibaie,
Associate Administrator for Hazardous Materials Safety