

No. 09-1050

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

NATIONAL MARITIME SAFETY ASSOCIATION,

Petitioners,

v.

**OCUUPATIONAL SAFETY & HEALTH ADMINISTRATION and
U.S. DEPARTMENT OF LABOR,**

Respondents.

On Petition for Review of a Final Rule of The
Occupational Safety and Health Administration

BRIEF FOR OSHA AND THE U.S. DEPARTMENT OF LABOR

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**RULE 28 CERTIFICATE AS TO PARTIES, RULINGS AND
RELATED CASES**

- A. All parties, intervenors, and amici appearing in this court are listed in the Brief for the Petitioner.
- B. The references to the rulings at issue appear in the Brief for the Petitioner.
- C. There are no related cases.

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES.....	iii
GLOSSARY.....	x
STATEMENT OF JURISDICTION	1
PERTINENT STATUTES AND REGULATIONS.....	1
ISSUES PRESENTED	1
FACTS.....	3
1. <i>The Intermodal Container and Related Equipment.....</i>	3
2. <i>Problems posed by the Vertical Tandem Lift.....</i>	8
3. <i>Previous regulatory treatment of VTLs</i>	10
4. <i>The proposed rule.....</i>	14
5. <i>The final rule.....</i>	19
SUMMARY OF THE ARGUMENT	29
ARGUMENT	
I. <i>OSHA Has Established that VTLs Pose a Significant Risk to Worker Safety</i>	32
A. <i>Introduction.....</i>	32

B.	<i>OSHA's significant risk finding is supported by substantial evidence and adequately explained.....</i>	34
C.	<i>OSHA was not required to quantify the risk mathematically.....</i>	38
D.	<i>NMSA's remaining challenges to significant risk are meritless.....</i>	44
II.	<i>The OSH Act is Constitutional</i>	48
A.	<i>Circuit precedent establishes that the Act's grant of authority to issue safety standards satisfies the demands of the nondelegation doctrine.....</i>	48
B.	<i>NMSA's As-Applied Attack also Fails</i>	56
III.	<i>NMSA's Safe Work Zone Challenges are Unripe and Meritless</i>	57
IV.	<i>OSHA Met its Burden of Establishing Technological Feasibility</i>	62
V.	<i>OSHA May Ban Unsafe Workplace Practices.....</i>	68
	CONCLUSION	70
	CERTIFICATE OF COMPLIANCE	
	CERTIFICATE OF SERVICE	
	STATUTORY AND REGULATORY ADDENDUM	

TABLE OF AUTHORITIES

CASES:	Page
<i>*Alabama Power Co. v. OSHA</i> , 89 F.3d 740 (11th Cir. 1996).....	39
<i>American Dental Ass'n v. Martin</i> , 984 F.2d 823 (7th Cir. 1993).....	40
<i>American Iron & Steel Institute v. OSHA</i> , 939 F.2d 975 (D.C. Cir. 1991)	62, 63, 65
<i>American Textile Mfrs. Inst., Inc. v. Donovan</i> , 452 U.S. 490 (1981)	49-50
<i>Arbaugh v. Y&H Corp.</i> , 546 U.S. 500 (2006)	58
<i>Associated Bldrs. & Contrs. v. Brock</i> , 862 F.2d 63 (3d Cir. 1988)	38, 46, 48
<i>Brennan v. OSHRC</i> , 513 F.2d 1032 (2d Cir. 1975)	47
<i>Brennan v. OSHRC</i> , 491 F.2d 1340 (2d Cir. 1974)	47
<i>Building & Constr. Trades Dep't v. Brock</i> , 838 F.2d 1258 (D.C. Cir. 1988)	34, 44, 46, 69
<i>Clean Air Implementation Project v. EPA</i> , 150 F.3d 1200 (D.C. Cir. 1998)	59
<i>Esch v. Yeutter</i> , 876 F.2d 976 (D.C. Cir. 1989)	66

*** Authorities upon which we chiefly rely are marked with asterisks.**

<i>Fabricated Metal Products, Inc.,</i> 18 BNA OSHC 1072 (No. 93-1853, 1997)	60
* <i>IMS., P.C. v. Alvarez,</i> 129 F.3d 618 (D.C. Cir. 1997)	65, 66
* <i>Industrial Union Department, AFL-CIO v. American Petroleum Institute, 448 U.S. 607 (1980)</i> (Benzene),	20, 32, 33, 34, 38, 41, 42, 50, 57, 68
<i>International Union, UAW v. General Dynamics Land Systems Division, 815 F.2d 1570 (D.C. Cir. 1987).....</i>	47
* <i>International Union, United Automobile, Aerospace & Agricultural Implement Workers v. OSHA,</i> 37 F.3d 665 (D.C. Cir. 1994) (Lockout/Tagout II)	33, 40, 48-49, 50, 51, 53, 54, 55
* <i>International Union, United Automobile, Aerospace & Agricultural Implement Workers v. OSHA,</i> 938 F.2d 1310 (D.C. Cir. 1991) (Lockout/Tagout I)	49, 51, 52, 54, 62
<i>International Union, United Automobile, Aerospace & Agricultural Implement Workers v. Pendergrass,</i> 878 F.2d 389 (D.C. Cir. 1989)	33, 35
<i>J.J. Cassone Bakery, Inc. v. NLRB,</i> 554 F.3d 1041 (D.C. Cir. 2009)	48
<i>Manganas Printing Co.,</i> 21 BNA OSHC 1964 (No. 94-0588, 2007)	61
<i>MetWest, Inc. v. Secretary of Labor,</i> 560 F.3d 506 (D.C. Cir. 2009)	69

<i>National Mining Ass'n v. MSHA</i> , 116 F.3d 520 (D.C. Cir. 1997)	46
<i>National Mining Association v. U.S. Army Corps of Engineers</i> , 145 F.3d 1399 (D.C. Cir. 1998)	59
<i>National Park Hospitality Ass'n v. Department of the Interior</i> , 538 U.S. 803 (2003)	59
<i>Public Citizen Health Research Group v. Tyson</i> , 796 F.2d 1479 (D.C. Cir. 1986)	43
<i>Simplex Time Recorder Co. v. Secretary of Labor</i> , 766 F.2d 575 (D.C. Cir. 1985)	61
* <i>United Steelworkers v. Marshall</i> , 647 F.2d 1189 (D.C. Cir. 1981) (Lead)	34, 62-63, 67
* <i>Whitman v. American Trucking Ass'ns</i> , 531 U.S. 457 (2001)	30, 48, 50, 51, 54, 55, 56, 57

STATUTES AND REGULATIONS:

Occupational Safety and Health Act of 1970,	
2(b), 29 U.S.C. § 651(b)	32, 52
2(b)(3), 29 USC § 651(b)(3)	47
3(8), 29 U.S.C. § 652(8)	1, 32-33, 52, 68
5(a)(1), 29 U.S.C. § 654(a)(1)	47, 52
6, 29 U.S.C. § 655	47
6(b), 29 U.S.C. § 655(b)	1, 32, 49, 50

6(b)(5), 29 U.S.C. § 655(b)(5)	49, 50, 54
6(8), 29 U.S.C. § 655(b)(8)	52
6(f), 29 U.S.C. § 655(f)	34, 65
29 C.F.R. § 1917.45(b)(2)	68
29 C.F.R. §§ 1917.13(c) & 1918.81(f)	27
29 C.F.R. § 1917.71(d)(2)	12, 29
29 C.F.R. § 1917(k)	58
29 C.F.R. § 1917.71(i)(10)	26
29 C.F.R. § 1917.71(k)	28, 29
29 C.F.R. § 1918.7(f)(l)(i)	12
29 C.F.R. § 1918.85(a)(1)	12
29 C.F.R. § 1918.85(b)(1)	12
29 C.F.R. § 1918.85(c) (1986)	11, 12
29 C.F.R. § 1918.85(d)	12
29 C.F.R. § 1918.85(e)	29

MISCELLANEOUS

Federal Registers,

58 Fed. Reg. 16612	52
58 Fed. Reg. 16614	52, 53

58 Fed. Reg. 16615	52
62 Fed. Reg. 40152-53	13
68 Fed. Reg. 54298	14
68 Fed. Reg. 54298/3	3
68 Fed. Reg. 54300	13
68 Fed. Reg. 54300/1-/3	13
68 Fed. Reg. 54317	14
68 Fed. Reg. 54317/1	14
72 Fed. Reg. 31160	32
73 Fed. Reg. 75246	19
73 Fed. Reg. 75247/2	47
73 Fed. Reg. 75251	20, 37
73 Fed. Reg. 75251/1	20, 37, 45
73 Fed. Reg. 75251/2	20, 37
73 Fed. Reg. 75252-62	20
73 Fed. Reg. 75254/1	21
73 Fed. Reg. 75254/1-/3	21
73 Fed. Reg. 75256	36, 37, 45, 47
73 Fed. Reg. 75256/1	45
73 Fed. Reg. 75256/2	36

73 Fed. Reg. 75256/3	36
73 Fed. Reg. 75257	22, 24
73 Fed. Reg. 75257/3	22
73 Fed. Reg. 75258	22
73 Fed. Reg. 75258/1	21
73 Fed. Reg. 75260	22, 36, 37
73 Fed. Reg. 75260/2	23
73 Fed. Reg. 75260/3	22-23, 36
73 Fed. Reg. 75261	22, 24, 36
73 Fed. Reg. 75261/2	19
73 Fed. Reg. 75261/3	23
73 Fed. Reg. 75262	24, 25, 26
73 Fed. Reg. 75262/1	24
73 Fed. Reg. 75262/2	25
73 Fed. Reg. 75262/3	25
73 Fed. Reg. 75263	25, 26
73 Fed. Reg. 75264/1	25
73 Fed. Reg. 75267	26
73 Fed. Reg. 75267/1	7

73 Fed. Reg. 75267/3	26
73 Fed. Reg. 75268/3	27
73 Fed. Reg. 75270/3	29
73 Fed. Reg. 75278/2	27, 67
73 Fed. Reg. 75281	8
73 Fed. Reg. 75283	17
73 Fed. Reg. 75283/2	8
73 Fed. Reg. 75284/2	67
73 Fed. Reg. 75285/2	64
73 Fed. Reg. 75288/3	64, 65
73 Fed. Reg. 75289-90	19
73 Fed. Reg. 75290	29
73 Fed. Reg. 75290/2	58
74 Fed. Reg. 75245/2	3
74 Fed. Reg. 75246/3	3
75 Fed. Reg. 75263/3	25
Congressional Record,	
116 Cong. Rec. 38371 (1970)	47
OSHA's Field Operations Manual,	
CPL 02-00-148, p. 4-3 (2009)	60

GLOSSARY

ICHCA—International Cargo Handling and Co-ordination Association

ILWU—International Longshore and Warehouse Union

ISO—International Organization for Standardization

OSH Act—Occupational Safety and Health Act of 1970, 29 U.S.C. § 651 et seq.

OSHA—Occupational Safety and Health Administration

NIST—National Institute of Standards and Technology

NMSA—National Maritime Safety Administration

TEUs—twenty foot equivalent units (a measure of shipping volume)

VTL(s)—Vertical Tandem Lift(s)

STATEMENT OF JURISDICTION

OSHA agrees with the petitioner's jurisdictional statement, except that OSHA has jurisdiction to issue the Vertical Tandem Lifts (VTL) standard, since it requires the use of certain practices to mitigate unsafe employment and places of employment. *See* 29 U.S.C. §§ 652(8), 655(b).

PERTINENT STATUTES AND REGULATIONS

The statutory and regulatory provisions relevant to this petition for review are reproduced in an addendum at the end of this brief.

ISSUES PRESENTED

1. Whether OSHA's finding that VTLs, a procedure in which two or more intermodal shipping containers are lifted together, pose a significant risk is adequately explained and supported by substantial evidence in the record as a whole.

2. Whether Congress has provided an "intelligible principle" governing OSHA's authority to set safety standards sufficient to satisfy the nondelegation doctrine.

3. Whether NMSA's challenge to the VTL standard's "safe work zone" requirement is ripe, and whether the

requirement is adequately explained and supported by substantial evidence in the record as a whole.

4. Whether OSHA has established a reasonable possibility that employers are able to comply with the VTL standard in most cases, satisfying the test for technological feasibility, and whether NMSA may challenge that finding with material *dehors* the record.

5. Whether OSHA has the authority to ban unsafe work practices.

FACTS

1. *The Intermodal Container and Related Equipment.*

Today, the majority of maritime cargo is shipped in standardized intermodal containers. (68 Fed. Reg. 54298/3; 74 Fed. Reg. 75246/3.) These containers are designed, manufactured and tested to specifications developed by the International Organization for Standardization (ISO). (Ex. 40-10 p. 1.) General cargo containers, which are most pertinent for these purposes, are either 20 or 40 feet long and are comprised of a steel frame and corrugated steel sides. (74 Fed. Reg., 75245/2;1 Ex. 11-6D; Ex. 43-10, p.1.) Unloaded, a 40 foot container can weigh approximately 4.5 tons, and it can have a maximum gross loaded weight of over 30 tons, fully loaded. (See Ex. 41, App. 4, 5.2.1.8; Ex. 65-3, pp. 19-20; 1998-Tr. 115.)

At each corner is a steel casting that contains openings of specified size and location. (Ex. 11-6B.) These uniform openings allow the container to be secured onboard a ship, truck, or train. (Ex. 40-10, p.1; *see generally* Ex. 11-6H.) In addition, they allow a crane to lift the container by means of a

device called a spreader bar, which attaches to each of the four top corner castings. (1998-Tr. 177, 237; Ex. 50-13.)



Figure 1. General cargo container being lifted by spreader bar. (Cropped from Ex. 50-13.)

Containers may be stacked aboard ships four high or more. (Ex. 40-10 p. 1; 11-6H, p. 7; 1998-Tr. 135; Tr. 2-107.)

To help secure them in this configuration, containers are connected by interbox connectors that fasten each of the corner castings of the lower container to the castings of the container above it. (Ex. 11-6H, p. 7; 1998-Tr. 135.) Each container in the stack is fastened to the one directly above it in this fashion. (*Id.*)

Interbox connectors come in several types. Most important here are semi-automatic twistlocks. These are

designed with several elements: (1) a body, comprised of a plate that sits between the upper and lower corner castings and two collars that fit into the openings of the upper and lower castings, (2) cone-shaped fittings at either end of the body that lock into the corner castings, and (3) a steel shaft that extends through the body to connect the cones. (Ex 11-6H pp. 13-17.) To use the device, it is inserted into a corner casting and then locked by turning the cone so that it overlaps the edges of the opening in the corner casting. (*Id.*, pp. 17, 21-22.)

According to ISO standards, twistlocks must have cones that overlap the corner casting by at least 800 mm² (1.24 in²) and be tested to withstand a tensile load of 178 kN without permanent deformation. (OSHA-S025-2006-0658-0306, p. 6, 9.) What distinguishes the semi-automatic twistlock from the manual one is that it is spring loaded, so that once installed in the corner of a container, it will automatically lock into the corner of another container by the force of stacking one on top of the other. (Ex. 11-6H, p. 17.) Once engaged, the semi-automatic twistlock may be released only manually. (*Id.*) The

force of the spring helps to keep the cones locked into the corner castings in the interim. (Exh. 11-6H at 16-17.)

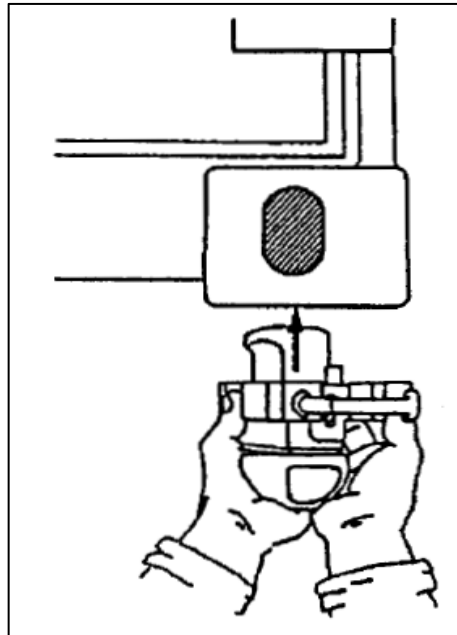


Figure 2--Inserting a twistlock into a lower corner casting. (Exh. 10-7B.)

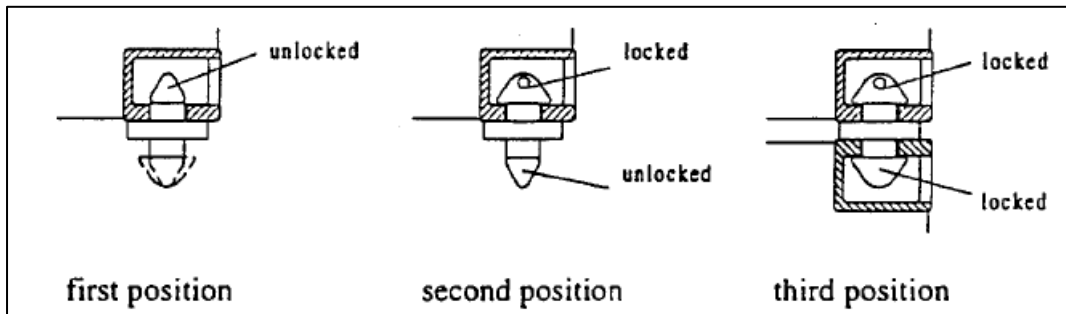


Figure 3--The engagement of a semi-automatic twistlock. (Ex. 11-6H, p. 17.)

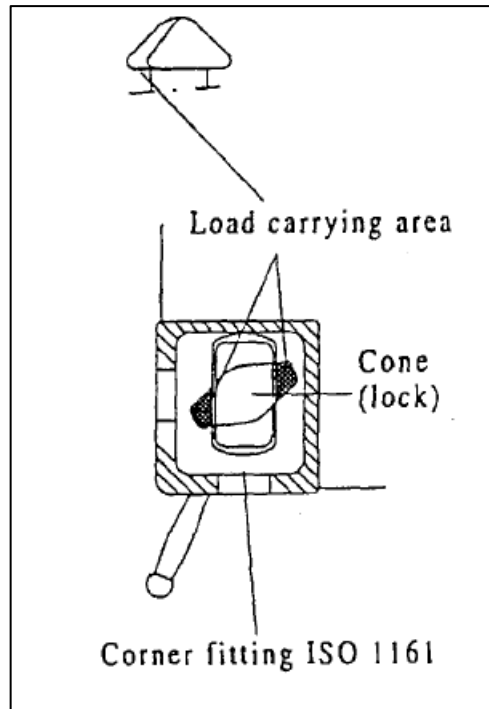


Figure 3--Top view of locked twistlock.
(Ex. 11-6H.)

The “flatrack,” also called a “platform container,” is also relevant to this rulemaking. They are open on the top and the wider sides, and depending on the design of the container, the end panels are either fixed in an upright position or may be folded flat on the floor of the container. (73 Fed. Reg. 75267/1) When their ends are folded down, flatracks may be connected together through their corner castings by twistlocks, or by special internal locking mechanisms, and lifted together as a vertical tandem lift. (Ex. 48, 48-1.)

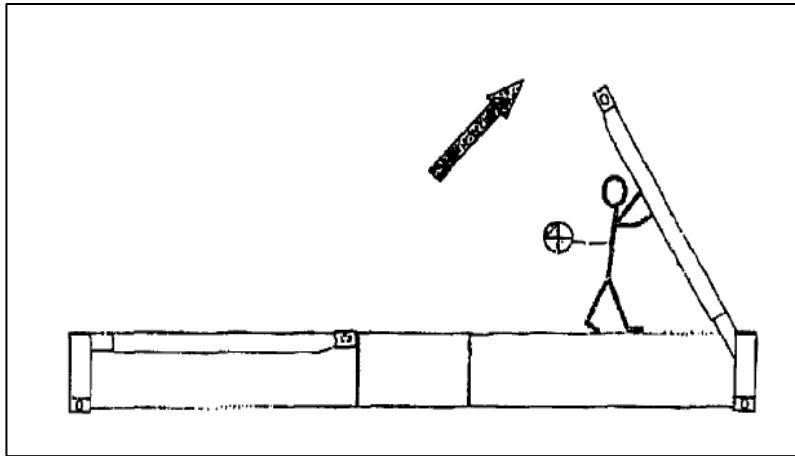


Figure 5--Folding end flatrack (Ex. 52-2)

2. *Problems posed by the Vertical Tandem Lift*

Enormous numbers of intermodal containers move through U.S. ports. The standard unit for tracking container traffic is the “twenty foot equivalent unit” or TEU. One TEU is the equivalent of one twenty foot container; thus one forty foot container is 2 TEUs. (73 Fed. Reg. 75283/2.) According to 2004 figures, the average cargo ship has a capacity of approximately 3,200 TEUs. (75 Fed. Reg. 75281.) In 2005, approximately 25 million TEUs were transported through US ports. (73 Fed. Reg. 75283/2.) Given this volume, marine cargo handlers have become keenly interested in finding

efficient means to load and unload containers. (See e.g. Ex. 50-9; 50-9-1; 47-5, p.5-6; 1998 Tr. 180.)

One method devised for increasing productivity in moving containers is the vertical tandem lift (VTL). In this method, two containers are connected together with semi-automatic twistlocks, one on top of the other, and then the pair is lifted from the top as a unit by a spreader bar. (Ex. 40-10, p. 1; Ex. 41, ¶¶ 4.8, 4.9; Ex. 50-9, pp. 8-9.) This creates productivity gains because the same number of TEUs could be moved with a fewer number of lifts, and minimize the amount of time each ship is in port. (1998 Tr. 125-26, 139; Ex. 47-5, p. 31.)

VTLs raise a number of safety concerns. They rely on semi-automatic twistlocks for holding the bottom container aloft during the lift, which were not designed for lifting. (1998 Tr. 151; Ex. 11-11, p. 2.) Thus, the strength of the system must be evaluated to determine the conditions under which lifts by this process might be safe. (*Id.*) In addition, VTLs have a larger wind sail area, which place additional forces on the interbox connectors and create a heightened potential of spinning or helicoptering. (Tr. 2-350 to 2-351; Ex. 41,

¶ 8.1.5.1 & App. 4, 3.3.) Further, the bigger the bulk of the VTL, the more difficult it is for the crane operator to handle. (Tr. 1-119; 2-15 to 16.) VTLs also create stability and tipover concerns, when being transported by ground vehicles, particularly if the top container is heavier than the bottom one. (Tr. 2-227, 2-283, 2-295; Ex. 41, ¶ 8.2.2.3.7.)



Figure 6--a two-container vertical tandem lift (Ex. 65-3, p. 21.)

3. *Previous regulatory treatment of VTLs.*

In the 1980s and the early 1990s, OSHA received two requests to permit VTL operations. OSHA's regulations at the

time did not directly address the practice, but provided that “[a]ll hoisting of containers shall be by means which will safely do so without probable damage to the container and using the lifting fittings provided.” 29 C.F.R. § 1918.85(c) (1986). The first request, made by a firm named Matson Terminals in 1986, sought permission from OSHA to perform VTLs of two containers that were either empty or loaded with automobiles. (Ex. 40-3.) While the agency refused to give a “blanket endorsement” to Matson’s request, it nonetheless stated that where the manufacturer’s specifications, test reports, and the condition of the containers, corner castings, twistlocks, and lifting equipment showed that the “intent of the standard” was met, it would “be considered a feasible method of handling cargo.” (Ex. 40-8.)

The second request was made in 1993 by Sea-Land Corporation, which sought permission to perform VTLs of two empty containers. (Ex. 1.) OSHA responded, in what has become known as the “Gurnham letter,” stating that it would not challenge VTLs that met the following conditions:

1. The containers must be inspected for visible defects prior to hoisting and damaged containers shall not be hoisted in tandem. Ref.-29 C.F.R. 1918.85(d).
2. You must ensure that both containers are empty. Ref. -29 C.F.R. 1918.85(b)(1).
3. The weight of the containers when empty shall be permanently marked on the containers. Ref.-29 C.F.R. 1918.85(a)(1).
4. The twist locks must all operate in the same manner (be uniform) and they must have a positive, verifiable locking system.
5. The load shall not exceed the capacity of the crane. Ref. -29 C.F.R. 1918.85(c).
6. The top container must be hoisted by the top fittings and the lifting forces shall be applied vertically from at least (4) such fittings. Ref.-29 C.F.R. 1918.7(f)(l)(i).
7. You must have available for inspection documentation from the manufacturer which verifies the capacities of the twist locks and corner castings.
8. You must direct employees to stay clear of the area beneath the suspended containers. Ref.-29 C.F.R. 1917.71(d)(2).

(Ex. 2.)

In 1998, based on information about VTLs obtained in separate rulemaking, OSHA began to consider a standard for

VTLs. It published a notice seeking information on the subject, (62 Fed. Reg. 40152-53; Ex. 9), and conducted a series of other activities to learn about VTLs. It held a public stakeholder meeting on January 28, 1998, (Ex. 22-X), it contracted with the National Institute of Science and Technology to study the strength of corner castings and twistlocks that might be used in VTLs, (Ex. 40-10), it asked its Maritime Advisory Committee on Occupational Safety and Health to review the issue, (68 Fed. Reg. 54300/1), and it met with international organizations on the issue, (*id.* at 54300/1-3).

The International Organization for Standardization, was also active on the issue, adopting specifications for twistlocks in 2000, and for VTLs in 2002. (Ex. 40-9, OSHA-S025A-2006-0658-0306.) In addition, ICHCA International, an organization largely comprised of representatives of maritime employers and governmental experts, issued a series of work practice recommendations for performing VTLs in 2003. (Ex. 41; Tr. 1-249 to 1-250.) These recommendations were based on of

engineering calculations about the strength of the twistlock-corner casting assembly. (Ex. 41, App. 4.)

4. *The proposed rule.*

Relying on the information it gathered, OSHA published a notice of proposed rulemaking on VTLs in 2003. (68 Fed. Reg. 54298.) The proposal required certification and inspection of twistlocks and a ground transportation plan to guard against tipovers. (68 Fed. Reg. 54317.) It placed a wind speed restriction on VTL operations, and required that the crane operator perform a “prelift” or pause in the lift once the full weight of the lift was suspended, to check that the twistlocks were engaged before completing the lift. (*Id.*) It also allowed VTLs of flatracks in accordance with the manufacturer’s recommendation. (*Id.*) The proposal also required that VTLs be performed with gantry-type cranes. (*Id.*) Many of these requirements came from the ICHCA recommendations. (See Ex. 41.)

In addition, the proposal limited VTLs to two containers with a gross weight of 20 tons. (68 Fed. Reg. 54317/1.) In this way it differed from the Gurnham letter—which allowed

only two empties—and the ISO standard and ICHCA recommendations—which allowed VTLs of up to three containers with a gross weight of 20 tons. (Ex. 41, 5.1.7, 8.12; Ex. 40-9.)

OSHA's proposal was controversial. Longshoring unions opposed allowing any VTLs at all in comments and testimony presented at OSHA's hearing on July 29 and 30, 2004. (See, e.g., Ex. 43-10; Tr. 1-322 to 323; Tr. 2-233.) The unions produced evidence and testimony concerning a number of midair VTL separations, (Ex. 8-A, p.7; Ex. 11-1-B, pp 7-9; Ex. 11-1-H; Ex. 11-1-K; Ex. 11-1-M; Ex. 11-3, pp. 2-3; Ex. 11-3-A; Ex. 11-3-B; Ex. 43-10, pp. 18-19; Ex. 45-1; Ex. 61, pp. 24-28; Ex. 62, pp. 174-76; Tr. 2-285 to 286, 2-333 to 335), and testimony that one or more twistlocks often disengaged during VTL, (Tr. 2-396 to 397, 2-405; 1998 Tr. 236-37; *see also* Ex. 11-1-H; Ex. 20, p. 1). In addition, the International Longshore and Warehouse Union presented evidence of multiple flatrack separations, (Ex. 43-10, p. 19; Tr. 2-369 to 2-370, 2-419 to 2-420), and argued that flatracks were not safe because they were untested and the metal used in their

corner castings is thinner and their openings are larger, (Ex. 43-10, p. 7).

The ILWU also presented the testimony of Robert N. Anderson, Ph.D., a forensics materials engineer, who testified that the available evidence was insufficient to allow a conclusion that VTLs were safe. (Ex. 50-8; Tr. 2-241 to 273.) This was because, among other things, the two studies on the strength of twistlocks and corner castings (one performed by NIST (Ex. 40-10) and one performed by the Swedish National Testing and Research Institute (Ex. 11-6-H)), did not simulate the dynamic forces involved in VTLs. (Ex. 50-8, p. 1-2; Tr. 2-243.) In addition, he testified that the NIST study suggested that twistlock shafts were subject to a process called “cold working,” which made them stronger but more brittle, and more likely to fracture. (Tr. 2-254.)

The ILWU also produced evidence that because of these safety concerns, VTLs were prohibited under its collective bargaining agreement with the Pacific Maritime Association. (Ex. 43-10, p.14; Tr. 2-232.) The International Longshore Association presented testimony that Maersk had stopped

performing VTLs in its Port Elizabeth, NJ facility.¹ (Tr. 1-319.)

A representative of Virginia International Terminals, a marine terminal, also testified that it did not allow VTLs for safety reasons. (Tr. 2-44.)

Industry interests, on the other hand, argued that VTLs were safe, and that OSHA should adopt a rule that allowed VTLs of three containers, in accordance with ISO's standard and the ICHCA recommendations. (*See, e.g.*, Ex. 47-1; Ex. 47-5, pp. 3, 6-8; Ex. 50-10-1; Tr. 1-75 to 77, 2-96 to 98.) They testified they that had conducted hundreds of thousands of VTLs, (*see* 73 Fed. Reg. 75283 (summarizing the evidence submitted)), and had no reports of an employee being injured or killed as a result. (Tr. 1-96 to 1-98, 1-296, 2-112 to 2-113, 2-213.) Industry witnesses said they followed the ICHCA guidelines, the requirements of the Gurnham letter, and had their own VTL safety policies. (*See* 1998-Tr. 197-98; Tr. 1-299, 2-147, 2-150, 2-203 to 2-206; Ex. 61.)

¹ A Maersk official testified that it performs VTLs in at some of its facilities in the U.S., through its subsidiary APM Terminals. (Tr. 2-96, 2-150, 2-203.)

Industry's experts testified that the NIST and Swedish studies, and the ICHCA engineering calculations showed that twistlocks and corner castings were strong enough to conduct VTLs safely under the restrictions of the ISO standard and ICHCA's guidelines. (Tr. 1-36 to 1-40; Ex. 50-10-2; *see also* 1998 Tr. 111-24.) With regard to flatracks, one industry expert testified that they are safe because they are covered by their own ISO standard (Tr. 1-56 to 1-57; *see also* Ex. 10-2), and a flatrack manufacturer submitted test data regarding one of its products, (Ex. 52-3). Industry also provided evidence that cranes other than gantry cranes could be used to safely perform VTLs, (*e.g.*, Ex. 50-10-1, pp. 8-10; Ex. 54-15; Tr. 1-280 to 1-290, 1-314), and it argued for a somewhat more liberal annual twistlock inspection regime, (*e.g.*, Ex. 47-5, pp. 14-17; Tr. 1-81 to 1-87).

In response Dr. Anderson's criticism regarding the fact that the twistlock-corner casting assemblies had not been subject to dynamic testing, the United States Maritime Association and the Pacific Maritime Association hired the engineering firm of Lucius Pitkin, Inc. to conduct stain gage

testing of these connections during actual VTLs. (Ex. 65-1, 65-3.) These tests showed that containers were subjected to an “intermediate” rather than “dynamic” loading rate, and therefore, Lucius Pitkin argued, the static testing used by NIST and the Swedish study was appropriate. (Ex. 65-2, pp. 20, 33, Ex. 65-3, p. 12.) In addition, this test showed that due to the rapid acceleration that containers experienced when lifted up, the connections can experience forces of up to 2.0 g. (Ex. 65-3, p. 40; 73 Fed. Reg. 75261/2.)

6. *The final rule.*

On December 10, 2008, OSHA issued its final rule on VTLs. (73 Fed. Reg. 75246.) The final rule largely carried through the proposed rule’s requirements for manufacturer certification of twistlocks, windspeed limitations while performing a VTL, and the requirement for marine terminals to prepare a VTL transportation plan. (73 Fed. Reg. 75289-90.) However, it also made changes to the proposal, discussed below.

Before adopting a standard, OSHA is required to make a threshold finding that workers face a “significant risk,” and

that risk will be reduced by the adoption of certain practices. *Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607, 642 (1980). Here, OSHA found that unregulated VTLs posed a significant risk. (73 Fed. Reg. 75251.) Though the record showed that numerous lifts had been conducted without death or injury, there was evidence that not all twistlocks engaged properly with a number of VTL separations. (*Id.* at 75251/1.) Further, OSHA found that industry itself had adopted practices through ISO and ICHCA to minimize the risk associated with VTLs. (*Id.* at 75251/2.) In addition, OSHA noted, it had already determined that lifts of single containers posed a significant risk, and VTLs could not be less risky. (*Id.*) Finally, OSHA relied on its comprehensive engineering analysis of the strength of the VTL system, which found that a sufficient margin of safety could not be assured for many VTL operations. (*Id.*)

OSHA's explanation supporting the final rule started with its engineering analysis of the strength of the twistlock-corner casting assembly. (73 Fed. Reg. 75252-62.) Key concepts in this analysis are the determination of the appropriate "safety

factor” and “maximum rated load” (or safe working load). The maximum rated load is the highest load permitted to be carried by a particular component. (73 Fed. Reg. 75254/1.) This load is significantly less than the ultimate strength of the component, to guard against the possibility that the component is accidentally subjected to forces greater than it can bear. *Id.* This difference is called the safety factor, and it is represented by the quotient of the ultimate strength divided by the maximum rated load. *Id.* As OSHA explained in its preamble,

The safety factor is determined by engineering judgment and takes into account factors such as: The accuracy of load estimates, the consequences of failure, the possible effects of wear, and the cost and technological feasibility of overdesigning the component. . . . In general, the safety factor is adjusted upwards to account for increasing uncertainty about the loads and forces imposed by real world conditions.

(*Id.* at 75254/1-/3.)

OSHA determined that the appropriate safety factor to require for VTL interbox connections is five. 73 Fed. Reg. 75258/1. This was supported by testimony from industry

experts and was used by the ISO and ICHCA in setting their requirements. *Id.* After a lengthy discussion of the evidence on the ultimate strength of the connection (73 Fed. Reg. 75257-58), it relied on the strength required by the ISO standards, which require that twistlocks be certified as having a safe working load of 10,000 kg. (Ex. 41, pp. 4-5; Ex. 50-10-2 pp. 7-8.) For its engineering calculations, OSHA used an ultimate strength of 490 kN—which is the equivalent of five times the safe working load, converted to the force measurement units of kilonewtons (kN). (73 Fed. Reg. 75257/3 n.14.)

To calculate the forces to which this system is subjected, OSHA relied on the methodology developed by ICHCA to calculate the forces on each twistlock-corner casting connection in a VTL. (73 Fed. Reg. 75260/1.) However, OSHA modified ICHCA's approach, because it found that some of the assumptions on which ICHCA relied were not supported by the record. (*Id.* at 75260-61.) First, ICHCA assumed that the forces on the VTL would be distributed evenly between the four twistlock connections between each container. (73 Fed.

Reg. 75260/3, Ex. 41, App. 4, 5.2.1.2, 5.2.1.7.) However, the evidence in the record showed that one or more of the twistlocks in a VTL would often disengage, and that it would be difficult to notice during a VTL if the bottom container was suspended only by two twistlocks in diagonal corners. Thus, in its strength calculations, OSHA assumed that the forces of the VTL would be distributed across only two connections at diagonal corners, rather than four. (73 Fed. Reg. 75260/3, 75261/3.)

Second, OSHA agreed, in part, with the ILWU's expert that additional dynamic forces needed to be considered in the strength analysis. (See 73 Fed. Reg. 75260/2.) In particular, where the ICHCA analysis included an allowance for the dynamic force created by the action of a strong wind on the containers, it did not account for the 2.0 g acceleration force experienced when the VTL is lifted. (*Id.* at 75260/3.) OSHA included the acceleration force in its calculations. (*Id.*) It also determined that any other unknown dynamic forces were adequately accounted for in the safety factor. (*Id.*)

Performing the calculations under these changed assumptions, OSHA determined that a twistlock-corner casting connection between the containers in a two-container VTL would bear a force of 79 kN when the containers are empty. (73 Fed. Reg. 75261-62.) With a safety factor of five, this would mean that the twistlock-corner casting assembly must have a minimum ultimate strength of 395 kN, OSHA found. (73 Fed. Reg. 75262/1.)

OSHA made a series of decisions based in whole or in part on this calculation. First, it decided to incorporate the proposal's requirement that twistlocks have a safe working load of 10,000 kg with a safety factor of 5, derived from the ISO standard, into the final rule. (73 Fed. Reg. 75262/1.) This would mean the twistlock would have a minimum ultimate strength of 490 kN. (*Id.*; see also 73 Fed. Reg. 75257 n.14.) Thus, the interbox connection would have sufficient strength to withstand the forces anticipated in the strength calculation. (73 Fed. Reg. 75262/1)

Second, OSHA allowed only VTLs of empty containers. The margin between the 79 kN calculated forces and the 98kN

safe working load would allow for only very small loads (about 1.25 tons). (73 Fed. Reg. 75262/2.) The empty requirement also protects against the dangers of shifting or uneven loads. (73 Fed. Reg. 75264/1.) There was also evidence in the record of inaccuracies of paperwork concerning load weights, and the possibility that there would be errors in weighing VTLs, which would lead to overloaded lifts. (75 Fed. Reg. 75263/3.) In addition, OSHA reasoned, the empty requirement facilitated compliance, because it would be easy to determine whether the containers were empty by visual inspection. (73 Fed. Reg. 75264/1.)

Third, OSHA determined that it would limit VTLs to two-container lifts and prohibit lifts of three containers or more. (73 Fed. Reg. 75262-63.) Where in a two-container lift the interbox connections would be required to support the weight of only one container, in a three-container configuration, the connections between the first and second containers would support the weight of the second and third containers. (73 Fed. Reg. 75262/3.) The calculations showed that the force exerted on the interbox connections between the first and

second containers would be roughly 158 kN, far in excess of the safe working load of 98 kN. (*Id.*) Moreover, OSHA found, the record showed that there operational difficulties with three-container lifts: they have a greater potential to helicopter because of wind lift or uneven loading, they are more difficult for the crane operator to control when moving or landing the load, and they pose a greater tipover hazard when being moved around the terminal. (73 Fed. Reg. 75262-63.)

A fourth decision driven, in part, by OSHA's engineering analysis was the decision to ban flatrack VTLs. The record contained evidence of a number of separations of bundled flatracks, and that their corner castings were inferior to those used in box containers. (73 Fed. Reg. 75267.) Moreover, the test results submitted by a manufacturer showed that while the connections successfully held the "design loads" of 15 and 30 tons, they failed at 38 tons, and therefore did not have a safety factor of 5, OSHA found. (Ex. 52-3; *see also* 73 Fed. Reg. 75267/3.) Thus OSHA prohibited the lifts of flatracks in a VTL unit, 29 C.F.R. § 1917.71(i)(10), but stated that it would allow multiple flatrack lifts if the stacks were banded or

strapped as a unitized load as provided in 29 C.F.R.

§§ 1917.13(c) & 1918.81(f). (73 Fed. Reg. 75268/3.)

Finally, OSHA relied on the engineering analysis to support the timing of the required inspection of the twistlocks and corner castings before the VTL. Industry representatives had testified that interbox connectors and containers experience greater forces at sea than during VTLs. (Tr. 1-45, 1-150 to 1-151; Ex. 10-6, p. 4.) In addition, twistlocks and corner castings are subject to rough handling and harsh environments, including sea water, dirt, grime, snow, ice and debris, which can prevent them from working properly, OSHA found. (73 Fed. Reg. 75278/2.) Noting that it had found that the forces experienced during a two container lift are near the safe working load of the interbox connections, OSHA observed that if “the forces at sea are greater than in a VTL, as the industry witnesses claim, then it is quite likely that they are commonly overloaded in transit.” (73 Fed. Reg. 75278/2.) Given this fact and the undisputed evidence that the connections were subject to debris and contamination, OSHA determined that the required inspection of the twistlocks and

corner castings must occur immediately before the lift. (*Id.*)

The Agency acknowledged, however, that this requirement might make ship-to-shore VTLs impractical. (*Id.* n.31.)

OSHA made one other decision in its final rule that is relevant to NMSA's challenge: a "safe work zone" requirement. This requires employers to establish an area in which employees may not be present while the VTL is in motion, and the area shall be "sufficient to protect employees if a container drops or overturns." 29 CFR 1917.71(k). The record showed many employees work in the area that VTLs are conducted: there can be 13 per crane and as many as five to seven cranes working at one time on the ship. (Tr. 2-360.) A number of commenters provided testimony about stand clear zones. For example, Ron Hewett, Director of Safety and Training for APM terminals, and a member of NMSA's training committee, (Tr. 2-199), testified that his organization "set shadow areas . . . danger exclusion areas," and recommended that OSHA should too, (Tr. 2-229; *see also id.* 2-227). Sea-Land testified that it used stand-clear zones, (1998 Tr. 178-79), and the ILWU recommended that stand clear zones be used as well, (Tr. 2-

359 to 2-360; Ex. 43-10-3, p.13). The longshoring and marine terminal standards already required employers to direct employees to stay clear of the area beneath a suspended container, 29 C.F.R. §§ 1917.71(d)(2), 1918.85(e), OSHA noted, (73 Fed. Reg. 75270/3), and in light of the evidence presented at the hearing regarding safe work zones, adopted required the further requirement that while the VTL is in motion, the safe work area must be sufficiently large to protect employees in the event of an accident. 29 C.F.R. §§ 1917.71(k); 73 Fed. Reg. 75290.

SUMMARY OF THE ARGUMENT

OSHA's decision to promulgate a rule mitigating the risks of VTLs is supported by the record and adequately explained by the agency. OSHA conducted a comprehensive engineering analysis of the strength of the interbox connections, and determined that VTLs could be performed safely only under limited conditions. OSHA relied on this determination, along with the fact that industry had adopted safe handling procedures, evidence of VTLs separations and twistlock disengagements, and its significant risk finding for single-

container lifts in determining that VTLs posed a significant risk.

Contrary to what NMSA argues, there is no requirement to “quantify” the risk in making this determination; rather, OSHA need only determine that the process is sufficiently unsafe that reasonable persons would take steps to avoid the risk. And the significant risk determination is made against what OSHA’s standards currently allow, not what practices employers may have voluntarily adopted.

OSHA’s authority to set safety standards is constitutional under the nondelegation doctrine, as this Court has held in evaluating OSHA’s Lockout/Tagout standard. NMSA’s argument to the contrary misconstrues this Court’s *Lockout/Tagout* decisions as actually holding the opposite. The Supreme Court’s decision in *Whitman v. American Trucking Ass’ns*, 531 U.S. 457 (2001), far from supporting NMSA’s nondelegation claim, upheld a delegation of rulemaking authority every bit as broad as the one found in the OSH Act for safety standards.

NMSA's remaining claims merit even less attention. Its challenges to the "safe work zone" are not yet ripe, and in any event the requirement is adequately supported and explained by OSHA. NMSA mounts an attack on two aspects of the feasibility of the standard, but it relies on a declaration not found in the record to do so, which even taken on its own terms merely shows that in some circumstances some aspects of the standard might not be feasible. OSHA is not required to show in pre-enforcement proceedings that a rule is feasible in all circumstances and NMSA's claim may be asserted in enforcement proceedings, if any. Finally, NMSA argues that OSHA can't ban a work practice, but in fact OSHA's undisputed authority to require some work practices necessarily entails the power to ban others. NMSA's petition for review is wholly without merit, and it should be dismissed.

ARGUMENT

I. OSHA Has Established that VTLs Pose a Significant Risk to Worker Safety.

A. Introduction

The Occupational Safety and Health Act was enacted to “assure so far as possible every working man and woman in the Nation safe and healthful working conditions.” 29 U.S.C. § 651(b). In furtherance of this goal, the Act empowers the Secretary of Labor² to promulgate occupational safety and health standards. 29 U.S.C. § 655(b). An “occupational safety and health standard” is a rule that imposes requirements “reasonably necessary or appropriate to provide safe or healthful employment and places of employment.” 29 U.S.C. § 652(8).

In *Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607, 642 (1980) (hereafter “*Benzene*”), the Supreme Court construed § 3(8) of the Act, 29

² The Secretary of Labor has delegated her authority to promulgate standards under the OSH Act to the Assistant Secretary for Occupational Safety and Health, the head of The OSHA. (Sec’y Order 5-2007, 72 Fed. Reg. 31160.) “The Secretary,” “OSHA” and “the agency” are used interchangeably throughout this brief.

U.S.C. § 652(8), to require what has become known as a significant risk finding: “Before [s]he can promulgate *any* permanent health or safety standard, the Secretary is required to make a threshold finding that a place of employment is unsafe—in the sense that significant risks are present and can be eliminated or lessened by a change in practices.”

(Emphasis in original). In essence, this inquiry asks whether a particular risk is substantial enough that a “reasonable person might . . . take steps to decrease it or eliminate it.”

Benzene, 448 U.S. at 655.

A finding that a practice is “unsafe—in the sense that significant risks are present,” is based largely on policy considerations. *International Union, United Automobile, Aerospace & Agricultural Implement Workers v. Pendergrass*, 878 F.2d 389, 392 (D.C. Cir. 1989). OSHA need not “wait for deaths to occur before taking any action,” *Benzene*, 448 U.S. at 655, nor must it “support its findings with anything approaching scientific certainty,” *id.* at 656. “[T]he requirement that a ‘significant’ risk be identified is not a mathematical straightjacket.” *Id.* at 655. OSHA is free to use

conservative assumptions in interpreting the evidence, “risking error on the side of overprotection rather than underprotection.” *Id.* at 656.

B. *OSHA’s significant risk finding is supported by substantial evidence and adequately explained*

The OSH Act provides that the Secretary’s rulemaking determinations “shall be conclusive” if they are supported by substantial evidence in the record as a whole. 29 U.S.C. § 655(f); *United Steelworkers v. Marshall*, 647 F.2d 1189, 1206 (D.C. Cir. 1981). As applied to a significant risk finding, this means that the court will uphold the agency’s “essentially legislative judgment” if the agency “identifies relevant factual evidence, . . . explain[s] the logic and the policies underlying any legislative choice, . . . state[s] candidly any assumptions on which it relies, and . . . presents its reasons for rejecting significant contrary evidence and argument.” *Building & Constr. Trades Dep’t v. Brock*, 838 F.2d 1258, 1264 (D.C. Cir. 1988) (quoting *United Steelworkers*, 647 F.2d at 1207).³ The

³ While NMSA confuses the issue by suggesting that significant risk is a jurisdictional issue reviewable *de novo* (Br.

court's deference is at its peak when evaluating the agency's scientific determinations, so long as the agency makes "some articulation of reasons" for its choices. *Pendergrass*, 878 F.2d at 392.

OSHA's significant risk finding easily meets this standard. As explained at length in the preamble and in pp. 19-20, *supra*, the agency identified four bases for concluding that unregulated VTLs pose a significant safety risk: (1) prior accidents have occurred in which VTLs have separated in midair causing containers to fall to the deck or pier, (2) OSHA's own engineering analysis shows that the interbox connections between the individual containers in a VTL are not strong enough to safely withstand the stresses imposed upon VTLs in some circumstances, (3) the industry has acknowledged the risk associated with VTLs and has taken some steps to address it, and (4) the handling of individual containers has been found to involve risks in prior

12-13), it ultimately agrees that this Court must review OSHA's significant risk finding to determine whether it is supported by substantial evidence and adequately explained (Br. 15-16).

rulemakings and VTLs increase those risks. For each of these bases, OSHA identified the evidence on which it relied and explained why the evidence supported its significant risk conclusion. Where it used them, OSHA explained its assumptions, and it also explained why it rejected the only substantial contrary argument presented on significant risk—the fact that no deaths or injuries had yet been reported using the procedure.

Of central significance, OSHA performed its own analysis of the strength of the VTL interbox connections, using engineering principles supported by the record and a model of the forces involved developed by ICHCA, with some modifications.⁴ Based on this study, OSHA concluded that in

⁴ OSHA found that several assumptions used by ICHCA were not supported by the record (73 Fed. Reg. 75260-61.) For example, ICHCA assumed that the lifting forces would be distributed through four twistlock connections, but the record showed that it was not unusual for one or more twistlocks to disengage. (73 Fed. Reg. 75256/2-/3, 75260/3.) OSHA therefore assumed that only two connections at opposite corners, rather than all four, would be engaged for its analysis. (73 Fed. Reg. 75256/3.) In addition, ICHCA did not adequately account for dynamic forces such as acceleration of the load during the lift. OSHA included these forces in its

some circumstances in which VTLs are used, such as lifting two loaded containers or more than two vertically coupled containers, the interbox connections are subject to stresses beyond the maximum safe working load these components can bear. 73 Fed. Reg. 75251/2. The failure of the interbox connections in such circumstances could result in one or more containers - which can weigh anywhere between 4.5 tons when empty to more than 30 tons when loaded - to fall to the deck with potentially catastrophic consequences to employees under or near the lift. OSHA found that this risk is significant and that it will be substantially reduced by the standard's safeguards. *Id.* at 75251.

The danger of a catastrophic accident is not merely theoretical. OSHA found that at least nine midair VTL separations had occurred in ports in the United States and Canada and that any one of those accidents could have resulted in death or serious injury. 73 Fed. Reg. 75251/1, 75256. The Marine Terminal industry has recognized that

calculation of the maximum safe working load for a VTL. (73 Fed. Reg. 75260.)

there are potential hazards associated with VTL operations, and it has adopted standards and practices, through the ISO and ICHCA International, designed to minimize the risk of accidents. The fact that industry has taken these steps shows that VTLs pose a sufficient risk that a reasonable person might take steps to decrease or eliminate. *Benzene*, 448 U.S. at 655. OSHA was therefore clearly justified in considering the risk significant. *Id.* See also *Associated Bldrs. & Contrs. v. Brock*, 862 F.2d 63, 68 (3d Cir. 1988) (stating that existence of industry precautions against hazard establishes the existence of significant risk).

C. *OSHA was not required to quantify the risk mathematically*

NMSA does not challenge OSHA's engineering analysis showing that the stresses on the interbox connections exceed their maximum safe load during some VTLs, or that numerous midair VTL separations have in fact occurred, or that the industry itself has acknowledged the risk and taken steps to reduce it. NMSA asserts that OSHA must quantify the risk

posed by VTLs and express it as a numerical probability. (Br. 18-20.)

NMSA is wrong. First, no court has ever said that OSHA must quantify the risk to determine its significance. Courts have upheld OSHA significant risk findings without quantification where the hazard posed by a workplace practice or condition is clearly established. For example, the Eleventh Circuit upheld the requirement of the Electric Power Generation standard generally prohibiting synthetic clothing for employees who may be exposed to electric arcs based on videotape evidence of effects of electric arcs on synthetic fabric. *Alabama Power Co. v. OSHA*, 89 F.3d 740, 745-46 (11th Cir. 1996). The court found the videotape “powerful and substantial evidence” that synthetics do not adequately protect from the burning, melting and sticking caused by electric arcs and sufficient to support the finding that wearing synthetics poses a significant risk to utility workers. *Id.* at 746. It required no analysis of the number of injuries that had occurred, or calculation of the risk of such burns over a working lifetime.

Analogous cases in this circuit and the Seventh Circuit provide additional support for the agency's finding here. This Court upheld OSHA's significant risk finding in the Lockout/Tagout standard despite wide variations in industry accident rates and OSHA's failure to disaggregate industries where the average risk might be low or negligible. *International Union, United Automobile Aerospace & Agricultural Implement Workers of America, UAW, v. OSHA*, 37 F.3d 665, 670 (D.C. Cir. 1994). This Court accepted OSHA's explanation that servicing and maintenance of powered industrial equipment poses a significant risk to any employee who performs the activity, regardless of variations in accident rates across industry lines. *Id.* OSHA was not required to quantify the risk associated with the activity. Similarly, the Seventh Circuit did not require OSHA to quantify the risk of transmission of bloodborne disease to sustain the agency's significant risk finding for that rule. *American Dental Ass'n v. Martin*, 984 F.2d 823, 827 (7th Cir. 1993). The court found that there is a significant risk of infection in any situation where being splashed with blood can reasonably be anticipated, whether in

a dentists office, doctor's office or hospital operating room. *Id.* "OSHA was required neither to quantify the risk to worker's health nor to establish the existence of significant risk to a scientific certainty." *Id.*

NMSA's quantification argument derives no direct support from the *Benzene* plurality opinion. (Br. 18.) In the *Benzene* case, the Court reviewed OSHA's decision to lower the permissible exposure limit for benzene from 10 ppm to 1 ppm based largely on evidence of adverse health effects of exposure to benzene at concentrations well above 10 ppm. 448 U.S. at 631. OSHA did not attempt to assess in a meaningful way the actual risk posed by benzene at the existing 10 ppm limit; it relied on a series of assumptions concerning the possibility of harm at lower levels, and a finding that industry had not established any safe level of exposure for benzene. *Id.* at 634, 652. The plurality found that the statute is not designed to assure absolutely safe, risk-free workplaces, and OSHA must therefore find that a workplace is unsafe in the sense that significant risks are present before it may issue any permanent standard. *Id.* at 642. The Court found that OSHA

failed “even to attempt to carry its burden of proof” on the significance of risk by relying on evidence that there is no safe level for a carcinogen and therefore requiring industry to prove the existence of a safe level for benzene. *Id.* at 652-53.

OSHA’s approach in assessing the risks of VTLs was fundamentally different from that in *Benzene*. As we have noted, the risk of VTL accidents is not merely theoretical. Numerous full and partial separations have occurred, and can reasonably be expected to continue to occur in the absence of regulatory safeguards. Clearly, the risk associated with VTLs is not insignificant or trivial. Though the mathematical probability of a catastrophic accident is unknown, OSHA has quantified the risk sufficiently “to characterize it as significant in an understandable way.” *Benzene*, 448 U.S. at 646.⁵

NMSA’s other main argument is that the idea of quantification somehow inheres in the notion of risk. (Br. 18.)

⁵ The plurality appeared to recognize that OSHA might face circumstances where quantification of the risk would be unnecessary or impractical. Thus, significant risk “is not a mathematical straightjacket” and OSHA “need not calculate the exact probability of harm” or “wait for deaths to occur before taking action.” 448 U.S. at 655.

(“By definition, risk is a concept expressed by a number.”) But the mere fact that a risk might be theoretically quantifiable if the evidence is available does not mean that a risk cannot sensibly be understood unless it is expressed a number. It is easy to understand that exceeding the manufacturer’s load rating for a crane creates a risk of a catastrophic accident without knowing the mathematical probability that of that risk. The risk that the stresses imposed by a VTL will exceed the yield strength of the interbox connections is understandable in the same way.⁶

NMSA is also wrong in suggesting that the absence of quantification makes judicial review “either meaningless or impossible.” (Br. 20.) The engineering assumptions underlying OSHA’s finding are set forth in detail in the preamble, as are the circumstances in which VTLs have

⁶ NMSA notes that for other standards, OSHA often does quantify the risk (Br. 18, 19), and cites *Public Citizen Health Research Group v. Tyson*, 796 F.2d 1479, 1502 (D.C. Cir. 1986), a case which upheld an agency significant risk finding based on a quantification of risk. But OSHA has never said that such quantification is necessary, and *Public Citizen* does not deal with this issue.

actually separated in the past. Plainly, OSHA’s “essentially legislative judgment” that the risk of catastrophic accidents is significant and warrants regulation is subject to meaningful review. *Building & Constr. Trades Dep’t v. Brock*, 838 F.2d 1258, 1264 (D.C. Cir. 1988).⁷

D. *NMSA’s remaining challenges to significant risk are meritless*

NMSA raises two other related challenges to OSHA’s significant risk finding. It argues that the absence of deaths or injuries shows that VTLs are in fact safe and that OSHA must assess the risk posed by VTLs on the assumption that existing safety practices will continue. (Br. 21-23).

Neither of these contentions is correct.

It is true that no one has yet been killed or injured from the midair separation of a VTL. (Br. 21). As OSHA explained in the preamble, however, this does not mean that VTL operations are safe. There have been at least nine

⁷ NMSA also argues that OSHA should at least have to explain why it did not quantify the risk. (Br. 20-21.) However, as explained above, there is no requirement that risk be quantified and OSHA was not required to justify its decision not to quantify the risk here.

documented incidents in U.S. and Canadian ports in which VTLs have separated during the lift. 73 Fed. Reg. 75251/1, 75256/1. OSHA found that any one of these incidents could have resulted in deaths or injuries; “[i]t was simply good fortune that worker injury was avoided.” *Id.* at 75251/1.

Partial separations – incidents in which one or more interbox connections disengage as the containers comprising the VTL are being lifted – are much more common. *Id.* at 75256.

Obviously, the failure of one or more interbox connections during a VTL places greater strain on the remaining connections, increasing the risk of a full separation. *Id.* In the absence of the standard, VTL separations will presumably continue to occur and eventually result in deaths or serious injuries. The Act does not require OSHA to await that eventuality.

NMSA attributes the lack of deaths or injuries from VTL separations to industry’s compliance with the terms of the 1993 Gurnham letter, specifically the requirement that employees stay clear of the lifting area. (Br. 22.) It reasons from this that OSHA must assess the risk of VTLs on the

assumption that employees will always be clear of the danger zone in the event of a separation. *Id.* As a legal matter, however, in the absence of a preexisting standard OSHA properly assessed the risk posed by *unregulated* VTLs. *National Mining Ass'n v. MSHA*, 116 F.3d 520, 527-28 (D.C. Cir. 1997) (where existing mine safety regulations did not address minimum oxygen level, significant risk requirement under Mine Safety & Health Act would, at most, require identification of significant risk of having no oxygen standard at all); *Building & Constr. Trades Dept. v. Brock*, 838 F.2d at 1264 (risk of asbestos assessed at then-prevailing permissible exposure limit). *See also Associated Bldrs. & Contrs. v. Brock*, 862 F.2d 63, 68 (3d Cir. 1988) (rejecting argument that construction industry did not face significant risk associated with hazard communication standard because industry already provided training on hazardous materials). The Gurnham letter is not a standard, and its requirements do not carry the force of law.⁸ OSHA was not required to assume that

⁸ Prior to the issuance of the final rule in this case no OSHA standard directly addressed VTLs. The Gurnham letter takes

issuance of the Gurnham letter lessened the risks posed by VTLs to the point that a standard would no longer be justified.⁹

account of the general requirements in OSHA's marine terminal and longshore standards on the safe handling of single containers, and related industry practices associated with container cargo handling operations. 73 Fed. Reg. 75247/2. The Gurnham letter is essentially a statement of agency citation policy. So long as employers comply, they will not be cited for violating the Act's general duty clause. While OSHA can cite an employer for an unsafe practice under § 5(a)(1) of the Act, such a citation requires proof of a "recognized hazard" that is "causing or are likely to cause death or serious physical harm," among other things. 29 U.S.C. § 654(a)(1); *International Union, UAW v. General Dynamics Land Systems Division*, 815 F.2d 1570, 1577 (D.C. Cir. 1987). However, the whole thrust of the OSH Act is to require the adoption of legally binding standards to protect worker safety. See 29 U.S.C. §§ 651(b)(3), 655. Adoption of a standard has the virtue of making the employer's safety-related duties with respect to a workplace practice clear, which is fairer for the employer and facilitates compliance, thereby enhancing employee safety. Thus, "the standards are intended to be the primary method of achieving the policies of the Act." *Brennan v. OSHRC*, 513 F.2d 1032, 1038 (2d Cir. 1975) (citing 116 Cong.Rec. 38371 (1970) (remarks of Congressman Steiger); *Brennan v. OSHRC*, 491 F.2d 1340, 1343 (2d Cir. 1974)).

⁹ There is no evidence in the record to show that the absence of deaths and injuries from prior VTL separations is due to industry's compliance with the terms of the Gurnham letter rather than to sheer good luck. 73 Fed. Reg. 75256. To the extent that employers are already enforcing safety rules requiring employees to stay clear of the danger zone associated

II. The OSH Act is Constitutional.

- A. *Circuit precedent establishes that the Act's grant of authority to issue safety standards satisfies the demands of the nondelegation doctrine*

NMSA's nondelegation challenge to the OSH Act is a constitutional claim, reviewable de novo. *J.J. Cassone Bakery, Inc. v. NLRB*, 554 F.3d 1041, 1044 (D.C. Cir. 2009); *see also Whitman v. American Trucking Associations, Inc.* 531 U.S. 457, 473 (2001) ("Whether the statute delegate legislative power is a question for the courts . . .").

NMSA argues that OSHA's authority to issue safety standards under the OSH Act is unconstitutional on nondelegation grounds. (Br. 24-26.) However, this Court has squarely held that the Act's criteria for safety standards sufficiently limit the agency's discretion to satisfy the demands of the nondelegation doctrine.¹⁰ *International Union, UAW v.*

with VTLs, the requirements of the standard can only make these safety programs more effective. *Associated Bldrs. & Contrs*, 862 F.2d at 68.

¹⁰ Safety hazards are those "that cause immediately visible harm," while health hazards are "latent hazards, such as carcinogens," which are often undetectable by the casual observer because of the subtle effect or long latency period.

OSHA, 37 F.2d 655, 669 (D.C. Cir. 1994) (hereafter “*Lockout/Tagout II*”). In *Lockout/Tagout II*, this Court found that the Act constrains the agency in several important ways. Most critically, safety standards must substantially reduce a “significant” risk of material harm; they must be “highly protective”; and they must not be so stringent as to be technologically or economically infeasible. *Id.* at 668-69.

These limiting principles governing safety standards are substantially the same as those governing health standards under § 6(b)(5). Section 6(b)(5) requires that once OSHA determines that a substance poses a significant health risk, the standard must eliminate that risk to the extent that it is technologically and economically feasible to do so.¹¹ *American*

International Union, UAW v. OSHA, 938 F.2d 1310, 1313 (D.C. Cir. 1991) (hereafter “*Lockout/Tagout I*”). Health standards pose no nondelegation problem because they are governed by section 6(b)(5) of the OSH Act, which does not apply to safety standards. *Lockout/Tagout I*, 938 F.2d at 1316.

¹¹ Section 6(b)(5) provides, in relevant part, that “[t]he Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that

Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490, 512-13 (1981). In requiring a level of protection consistent with feasibility, § 6(b)(5) clearly satisfies the nondelegation doctrine. *Whitman*, 531 U.S. at 473-74 (noting that the *Benzene* Court upheld § 6(b)(5) with only then-Justice Rehnquist expressing the view that the statute violated the nondelegation doctrine). *Lockout/Tagout II*, 37 F.3d at 669 (assuming § 6(b)(5) satisfies nondelegation doctrine and comparing statutory criteria for safety standards). Likewise, the statutory requirement that safety standards provide a “high degree of worker protection, . . . permit[s] [OSHA] to deviate only modestly from the stringency required by § 6(b)(5) for health standards. Accordingly . . . the Act guides [OSHA’s] choice of safety standards enough to satisfy the demands of the nondelegation doctrine.” *Lockout/Tagout II*, 37 F.3d at 372.

NMSA argues that *Lockout/Tagout II* is no longer good law because it conflicts with the Supreme Court’s 2001 *Whitman* decision. (Br. 25.) On the contrary, *Lockout/Tagout*

no employee will suffer material impairment of health or functional capacity.” 29 U.S.C. § 655(b).

II is fully consistent with *Whitman*, and *Whitman* provides additional grounds for rejecting NMSA's nondelegation challenge.

Whitman reversed this Court's judgment remanding a Clean Air Act case to the EPA for the agency to adopt an interpretation consistent with nondelegation principles. 531 U.S. at 472-76. The Supreme disagreed with this Court's threshold finding that EPA's interpretation of the statute raised a nondelegation issue, and it also noted that an agency cannot cure an unconstitutional standardless delegation of power by voluntarily "declining to exercise some of that [delegated] power." *Id.* at 473. According to NMSA, *Lockout/Tagout I* held that the Act's provisions for issuing safety standards are unconstitutional on nondelegation grounds and *Lockout/Tagout II* permitted OSHA to "self limit" its discretion to cure the unconstitutional delegation. (Br. 25.)

NMSA misunderstands this court's decisions. First, contrary to NMSA's claim, *Lockout/Tagout I* did not hold the Act's safety standard authority unconstitutional. On the contrary, *Lockout/Tagout I* recognized that the statute,

properly interpreted, will satisfy the nondelegation doctrine.¹² 938 F.2d at 1321 (rejecting nondelegation claim). Lacking a clear agency interpretation of the statutory requirements, however, this Court remanded to obtain the agency's views.

Second, the Supplemental Statement of Reasons OSHA issued on remand explained that the *statute* established binding limits on the agency's discretion in promulgating safety rules. 58 Fed. Reg. 16612, 16614. The statutory limits, the agency explained, are derived from several provisions, including sections 3(8), 2(b), 6(8) and 5(a)(1). *Id.* at 16614-15. The Act places both upper and lower bounds on safety standards: Once OSHA has identified a significant safety risk, it must set the standard at a level of stringency that does not exceed industry's ability feasibly to comply, yet is sufficient to provide "a high degree of employee protection." *Id.* at 16615.¹³

¹² The *Lockout/Tagout I* panel, on its own, identified one interpretation of § 3(8) of the Act that would sufficiently limit OSHA's discretion in setting safety standards to satisfy the nondelegation doctrine. 938 F.2d at 1321. The panel also noted that "There may be other interpretations that conform to nondelegation principles." *Ibid.*

¹³ The Act also requires that in issuing a standard, OSHA must find that the measures required are the most cost-

OSHA emphasized that these constraints are not mere policy guidelines; they are *legislative* limits on the agency’s rulemaking authority. *Id.* OSHA cannot promulgate anything less than a highly protective safety standard; the agency has no discretion whatever to ignore this statutory limit. *Id.* (explaining that OSHA is not free to choose any degree of stringency it pleases for safety standards).

This Court accepted OSHA’s interpretation of the statutory limits of its discretion in setting safety standards. *Lockout/Tagout II*, 37 F.3d at 668 (“[t]he Supplemental Statement of Reasons delineates OSHA’s view of the statutory bounds of its authority to issue safety standards”). The Statement of Reasons, the panel found, eliminated any suggestion that OSHA possesses too much discretion in

effective capable of reducing or eliminating significant risk, and that the standard is supported by the evidence in the rulemaking record and is consistent prior agency practice or supported by some justification for departing from that practice. In addition, any standard that differs from an existing national consensus standard must effectuate the Act’s purposes better than the national consensus standard. 58 Fed. Reg. 16614.

setting safety standards.¹⁴ OSHA’s interpretation that safety standards must provide a high degree of protection permits it to deviate only modestly from the stringency required by §6(b)(5) and thus sufficiently guides the agency’s discretion to satisfy the demands of the nondelegation doctrine. *Id.* at 669.¹⁵

Accordingly, *Lockout/Tagout II* in no way conflicts with *Whitman*. As the Supreme Court noted, “[i]n a delegation challenge, the constitutional question is whether the statute has delegated legislative power to the agency.” 531 U.S. at 472. If the statute contains no guidance, the agency cannot cure the defect by establishing its own policies for exercising discretion. *Id.* But that is plainly not the situation here. This Court in *Lockout/Tagout I* thought the Act capable of several

¹⁴ The *Lockout/Tagout II* panel found that while OSHA had earlier “appeared to assume” broader discretion, its actual authority, as delineated in the Statement of Reasons, was narrower. 37 F.3d at 668.

¹⁵ The panel noted that while OSHA’s Supplemental Statement rejected the idea that formal cost benefit analysis is required, OSHA found that the relationship between the benefits secured by the lockout/tagout standard and the costs it imposes is reasonable. 37 F.3d at 670.

limiting constructions, but lacking any statement of statutory criteria in the rule, remanded for the agency's views. OSHA responded by explaining the statutory limits on its discretion to set safety standards, and this Court accepted the agency's interpretation. NMSA is therefore wrong in arguing that this Court's holding in *Lockout/Tagout II* amounted to an acceptance of OSHA's self-imposed limits on its discretion. (Br. 25.)

Whitman, far from supporting NMSA's nondelegation challenge, provides significant additional authority for the conclusion that the Act's delegation of authority for safety standards is constitutional. The statutory provision upheld in *Whitman* authorized the EPA to set certain air quality standards at levels "requisite to protect the public health from the adverse effects of the pollutant" 531 U.S. at 473. The requirement that EPA standards be "requisite" i.e., "sufficient but not more than necessary," *id.*, is no more specific than the requirement that OSHA safety standards be "highly protective," but within the bounds of "feasibility." And the OSH Act's delegation of authority to set safety standards is

certainly narrower than other statutory delegations that the Court has found constitutionally adequate. *Id.* at 474 (noting that the Court has upheld various statutory delegations authorizing regulation to serve the “public interest”; to assure “fair and equitable” pricing; and to avoid “unduly or unnecessarily complicated” corporate structures). The OSH Act’s delegation of safety–standard-setting authority easily fits within the limits of these nondelegation precedents. *Id.* NMSA’s facial nondelegation challenge must therefore be rejected.

B. *NMSA’s As-Applied Attack also Fails.*

NMSA also mounts an as-applied challenge to the constitutionality of the statute. Claiming that “OSHA never determined actual risk” and that OSHA’s decision is essentially unreviewable, NMSA argues that acceptance of the significant risk finding here would mean there are “no checks” on the agency’s delegated authority. (Br. 24, 26.) However, this is nothing more than a recycling of NMSA’s significant risk argument. As explained above in Argument Section I, though the mathematical probability of a serious accident is

unknown, midair separations of VTLs have occurred and will continue to occur and it is only a question of time until employees are killed or seriously injured as a result. OSHA's assessment of the safety risks associated with VTLs was sufficient to enable the agency "to characterize [the risk] as significant in an understandable way." *Benzene*, 448 U.S. 646. NMSA's quantification argument is reminiscent of one rejected by the Court in *Whitman* – that there must be a determinate criterion for saying how much of the regulated harm is too much. 531 U.S. at 475. As the Court made clear, the nondelegation doctrine does not require the Act to decree how "hazardous' [is] too hazardous" and permits OSHA to "make judgments of degree . . . and thus of lawmaking." *Id.* NMSA's as-applied attack should therefore be rejected.

III. NMSA's Safe Work Zone Challenges are Unripe and Meritless.

In addition to adopting requirements for the way in which VTLs were conducted and the equipment used to provide them, OSHA decided to require employers to establish a "safe work zone"—an area in which workers could not be present—

while the VTL was in motion. 29 C.F.R. § 1917(k). Witness testimony indicated that employers have such requirements in their work places (Tr. 2-199, 2-227, 2-229, 2-359, 2-360; 1998 Tr. 178-79), and OSHA adopted the requirement to protect employees in the event of an accident. (73 Fed. Reg. 75290/2.) While NMSA says it supports this requirement, it also fears that it will lead OSHA to cite employers for violations when OSHA has no “jurisdiction.”¹⁶ (Br. 28-30.) Its idea is that if it complies with the safe work zone, it should not be cited under the VTL standard’s other provisions because no employees will be exposed to a VTL hazard. (*Id.*) It also claims that in the future it might develop technologies where no employees would be present for the unloading ships, rendering the requirements of the VTL standard unnecessary to protect

¹⁶ NMSA frames this argument as about OSHA’s “jurisdiction,” but the term is not analytically helpful here. *See Arbaugh v. Y&H Corp.*, 546 U.S. 500, 510 (2006) (“Jurisdiction . . . is a word of many, too many, meanings.”) (citation and internal quotation marks omitted). NMSA’s use of the word conflates two powers granted to the Secretary by the OSH Act: the power to set standards in workplaces to mitigate or prevent exposure to significant risks, and the power to cite employers who fail to follow those standards where employees are exposed to hazard regulated by the standard.

employees. (*Id.* at 28-29.) NMSA’s argument should be rejected as unripe.

The ripeness doctrine prevents the courts from “entangling themselves in abstract disagreements over administrative policies and . . . protect[s] the agencies from judicial interference until an administrative decision has been formalized and its effects felt in a concrete way by the challenging parties.” *National Park Hospitality Ass’n v. Department of the Interior*, 538 U.S. 803, 807 (2003) (quotation marks and citation omitted). In determining whether an issue is unripe for pre-enforcement consideration, the court considers (1) whether the issues are fit for judicial decision and (2) the hardship to the parties in withholding court consideration. *Clean Air Implementation Project v. EPA*, 150 F.3d 1200, 1204 (D.C. Cir. 1998). A “court should reject a facial challenge, either as unripe or meritless, when the challenger’s success turns on the assumption that the agency will exercise its discretion unlawfully.” *National Mining Ass’n v. U.S. Army Corps of Engineers*, 145 F.3d 1399, 1408 (D.C. Cir. 1998).

NMSA's claim here is precisely the sort of abstract disagreement that would be better deferred to an enforcement proceeding, should it ever arise. In order to cite an employer for a violation of a standard, the Secretary must establish that there are employees exposed to the hazard involved.

Fabricated Metal Products, Inc., 18 BNA OSHC 1072, 1073 (No. 93-1853, 1997); *OSHA's Field Operations Manual*, CPL 02-00-148, p. 4-3 (2009) ("A hazardous condition that violates an OSHA standard or the general duty clause shall be cited only when employee exposure can be documented.").¹⁷ Thus, NMSA's concerns are unfounded: OSHA should not cite employers if there are no employees exposed to the VTL hazard, and even if it does, then employers will be able to obtain dismissal of the citation.

NMSA also says that by raising this claim now, it is merely preserving objections to the standard, because the standard cannot be challenged in enforcement proceedings.

¹⁷ OSHA's *Field Operations Manual*, which sets out the agency's policies for enforcement, may be found online at: http://www.osha.gov/OshDoc/Directive_pdf/CPL_02-00-148.pdf (last accessed Feb. 18, 2010).

(Br. 29.) This is incorrect: in fact, employers may wait to make such challenges in an enforcement proceeding. *Simplex Time Record Co. v. Secretary of Labor*, 766 F.2d 575, 585 n.2 (D.C. Cir. 1985); *Manganas Printing Co.*, 21 BNA OSHC 1964, 1969 (No. 94-0588, 2007). NMSA’s speculative, abstract claims are not yet fit for judicial resolution, and NMSA’s members face no hardship by waiting for enforcement proceedings to assert them. This court should not address them now.

Finally, NMSA makes a half-hearted attempt to challenge the safe work zone requirement. It says the requirement is unsupported by the record, (Br. 30), but as noted above, testimony from both union and industry supported the practice, (Tr. 2-199, 2-227, 2-229, 2-359, 2-360; 1998 Tr. 178-79). NMSA claims that OSHA has a “duty” to explain why it did not merely require some sufficiently large stand clear zone instead of the standard that it did, (Br. 30), but neither NMSA nor any other rulemaking participants proposed such an alternative. NMSA advocated only that OSHA adopt the ICHCA recommendations, which do not contain a safe work zone requirement. (Ex. 47-5, pp. 6-7, Ex. 41.) OSHA has no

duty to anticipate and respond to alternatives not even suggested in the rulemaking, and NMSA cites no authority to the contrary. NMSA's safe work zone challenges should be rejected.

IV. OSHA Met its Burden of Establishing Technological Feasibility.

The VTL standard is feasible. Under the OSH Act, feasibility has two aspects: technological—which NMSA is contesting here—and economic—which it is not. See *Lockout/Tagout I*, 938 F.2d at 1313. Technological feasibility, in pre-enforcement review, means that OSHA has established “a reasonable possibility” that the typical firm will be able to comply with the standard “in most of its operations.” *American Iron & Steel Institute v. OSHA*, 939 F.2d 975, 980 (D.C. Cir. 1991). OSHA need not establish that “all companies at all times in all jobs” can meet its new requirements, and the mere fact that there is insufficient evidence of feasibility in a few industry operations is insufficient to undermine OSHA's feasibility determination. *United Steelworkers of America, AFL-*

CIO v. Marshall, 647 F.2d 1189, 1272 (D.C. Cir. 1980)

(hereafter “*Lead*”).

OSHA’s technological feasibility determination is reviewed for support by substantial evidence. *American Iron & Steel*, 939 F.2d at 980. OSHA need use only the best available evidence, and need not establish feasibility with certainty. *Lead*, 647 F.2d at 1272. In addition, because infeasibility is a defense in enforcement proceedings if “OSHA’s predictions . . . prove too sanguine,” OSHA’s preliminary burden of establishing feasibility is “greatly eased.” *Id.* at 1273.

In this case, the question of technological feasibility is not difficult, and OSHA’s treatment of it is accordingly short.

It found that:

The final standard sets many conditions that must be met for VTLs to be performed safely, including requirements for: employee training, limits on wind speeds, type of crane, interbox connectors’ strength and locking mechanisms, inspections of connectors and container corner castings, and a plan for handling VTLs on shore. Because all of these conditions can be met by stevedores, and in fact most are currently being performed, the Agency has determined that the final standard is technologically feasible.

73 Fed. Reg. 75285/2. There can be little doubt that this is sufficient, in the circumstances. The standard requires adoption of specific work practices such as inspections, training, prelifts, and wind speed limitations, that pose no technological issues. The standard also incorporates design standards for twistlocks found in the ISO standard and ICHCA guidelines. OSHA found that employers were already complying with these requirements based on industry's support of them, 73 Fed. Reg. 75288/3, and NSMA does not protest them here. Finally OSHA adopted crane requirements such that not only gantry cranes, but also other cranes meeting the relevant criteria may be used. Again, NMSA makes no claim that the crane requirements are infeasible. Thus, substantial evidence supports OSHA's finding that the standard is technologically feasible.

NMSA makes much of OSHA's statement that "most" of the practices required by the statement were currently being performed, saying that OSHA should say which practices were and were not currently being performed. (Br. 32.) But feasibility merely requires a showing that the standard is

capable of being performed, not that it already is being performed. *See American Iron & Steel Institute*, 939 F.2d at 980. In any event, any fair reading of the preamble shows that all OSHA was referencing here were the requirements of the Gurnham letter, with which industry testified that it was complying. (*See* 73 Fed. Reg. 75288/3.) NMSA has pointed to nothing in the record to undermine OSHA's determination that the standard is feasible.

Instead, NMSA offers its own new declaration, dehors the record, in an attempt to show infeasibility. (Br. 32-33.) This is an improper challenge, and this Court should refuse to consider it. "It is a widely accepted principle of administrative law that the courts base their review of an agency's actions on the materials that were before the agency at the time its decision was made." *I.M.S., P.C. v. Alvarez*, 129 F.3d 618, 623 (D.C. Cir. 1997) (collecting cases); *see also* 29 U.S.C. § 655(f) (directing court to determine whether OSHA's decision is supported by substantial evidence "in the record considered as a whole"). "That principle exerts its maximum force when the

substantive soundness of the agency's decision is under scrutiny." *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989).

NMSA's declaration should be excluded from consideration under this principle. It is offering evidence it should have submitted to OSHA in the rulemaking proceeding, and for the court to consider it now would unfairly prejudice the other rulemaking participants, who would have no opportunity to comment on it. This Court should not consider NMSA's attempt to unilaterally supplement the record. See *I.M.S.*, 129 F.3d at 624.

In any event, even on its merits, NMSA's declaration merely raises the possibility that in some circumstances, it may not be possible to lift platform containers in the manner required by the rule.¹⁸ This does not establish that the rule is generally infeasible. Indeed, it is hard to see a feasibility problem with a rule that merely requires flatracks to be lifted

¹⁸ OSHA decided to ban VTL lifts of flatracks based, in part, on industry evidence that their built in connections did not have an adequate margin of safety, 73 Fed. Reg. 75267/3, and it is notable that NMSA does not challenge that determination on the merits. If employers developed evidence that some sorts of flatracks had a safety factor of 5, that might be grounds for the sort of petition suggested above.

one at a time or bundled together with bands or chains.

OSHA need not establish that a requirement is feasible for all companies in all situations, and the fact that compliance with the rule might, in some circumstances, be impossible does not defeat feasibility. As this court noted in the *Lead* decision, companies in this situation have several options: they can seek a temporary variance, they can defend against a citation in an enforcement proceeding with a feasibility defense, or they can petition the agency to commence a rulemaking to amend the standard.¹⁹ *Lead*, 647 F.2d at 1273.

¹⁹ NMSA also argues that OSHA failed to demonstrate feasibility for the requirement that the interbox connections of ship-to-shore VTLs be inspected immediately before the lift. (Br. 34.) However, OSHA recognized that this procedure “would be likely to save little time, or even be slower” than single lifts, and might carry higher fall risks for workers required to stand on stacks of containers above the decks. OSHA therefore concluded that employers would find no economic advantage in such a procedure, and would not perform them. (73 Fed. Reg. 75284/2; see also 73 Fed. Reg. 75278/2 n.2.) OSHA can hardly be faulted for discussing feasibility at great length in such circumstances. In any event, the feasibility question is not difficult—the standard merely requires a simple examination of the twistlock and corner casting. That it might not be economically advantageous to perform the procedure does not mean it is not feasible. Again, it is of note that NMSA has not argued that this requirement is unsupported by substantial evidence in the record.

V. OSHA May Ban Unsafe Workplace Practices.

NMSA's final contention, unencumbered with any citation to authority, is that OSHA "does not have the statutory authority to ban workplace practices." (Br. 35.) This proposition need not detain this Court for long. First, the OSH Act plainly gives the agency the authority to require "conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment." 29 U.S.C. § 652(8). By giving OSHA the authority to require certain workplace practices, Congress necessarily implied that OSHA has the authority to ban others. For example, the authority to impose a lift load restriction on a crane, *see* 29 C.F.R. § 1917.45(b)(2), necessarily includes the authority to ban the practice of lifting loads with the crane in excess of that limit. It can hardly be claimed OSHA does not have the authority to enact such restrictions, and, indeed, the authority is all to the contrary. *See, e.g., Benzene*, 448 U.S. at 662 (OSHA may impose ban on dermal contact with benzene containing chemicals by showing

that “the ban is ‘reasonably necessary and appropriate’ to remove a significant risk from such contact”); *MetWest, Inc. v. Secretary of Labor*, 560 F.3d 506, 512 (D.C. Cir. 2009) (“MetWest’s interpretation leads to the untenable proposition that Congress barred OSHA from preemptively banning *any* medical device”) (emphasis in original); *cf. Building & Constr. Trade Dep’t, AFL-CIO v. Brock*, 838 F.2d 1258, 1270 (D.C. Cir. 1988) (rejecting ban of asbestos in buildings not for lack of authority, but for lack of substantial evidence).

The VTL rule does nothing more. It requires the use of certain equipment and practices, which merely implies a ban on lifts that do not meet those requirements. It does not in express terms or effect ban the loading or unloading of intermodal containers. Indeed, it does not affect single lifts at all. Rather, the VTL rule restricts the practice of lifting of stacks of such containers to conditions where it may be done safely. That is well within OSHA’s authority and supported by the record. The petition for review should be dismissed.

CONCLUSION

For the forgoing reasons, this Court should dismiss the petition for review.

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**CERTIFICATE OF COMPLIANCE WITH D.C. Cir. R.
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CERTIFICATE OF SERVICE

I hereby certify that on the 19th day of February, 2010, copies of the foregoing Brief for the Secretary of Labor were served electronically upon the Clerk of the Court for the U.S. Court of Appeals for the District of Columbia Circuit and electronically on the following:

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ADDENDUM

ADDENDUM

Pertinent Portions of the Occupational Safety and Health Act of 1970

OSH Act § 3(8), 29 U.S.C. § 652(8):

The term "occupational safety and health standard" means a standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.

OSH Act § 6(b), 29 U.S.C. § 655(b):

(b) The Secretary may by rule promulgate, modify, or revoke any occupational safety or health standard in the following manner:

(1) Whenever the Secretary, upon the basis of information submitted to him in writing by an interested person, a representative of any organization of employers or employees, a nationally recognized standards-producing organization, the Secretary of Health and Human Services, the National Institute for Occupational Safety and Health, or a State or political subdivision, or on the basis of information developed by the Secretary or otherwise available to him, determines that a rule should be promulgated in order to serve the objectives of this Act, the Secretary may request the recommendations of an advisory committee appointed under section 7 of this Act. The Secretary shall provide such an advisory committee with any proposals of his own or of the Secretary of Health and Human Services, together with all pertinent factual information developed by the Secretary or the Secretary of Health and Human Services, or otherwise available, including the results of research, demonstrations, and experiments. An advisory committee shall submit to the Secretary its recommendations regarding the rule to be promulgated within ninety days from the date of its appointment or within such

longer or shorter period as may be prescribed by the Secretary, but in no event for a period which is longer than two hundred and seventy days.

(2) The Secretary shall publish a proposed rule promulgating, modifying, or revoking an occupational safety or health standard in the Federal Register and shall afford interested persons a period of thirty days after publication to submit written data or comments. Where an advisory committee is appointed and the Secretary determines that a rule should be issued, he shall publish the proposed rule within sixty days after the submission of the advisory committee's recommendations or the expiration of the period prescribed by the Secretary for such submission.

(3) On or before the last day of the period provided for the submission of written data or comments under paragraph (2), any interested person may file with the Secretary written objections to the proposed rule, stating the grounds therefor and requesting a public hearing on such objections. Within thirty days after the last day for filing such objections, the Secretary shall publish in the Federal Register a notice specifying the occupational safety or health standard to which objections have been filed and a hearing requested, and specifying a time and place for such hearing.

(4) Within sixty days after the expiration of the period provided for the submission of written data or comments under paragraph (2), or within sixty days after the completion of any hearing held under paragraph (3), the Secretary shall issue a rule promulgating, modifying, or revoking an occupational safety or health standard or make a determination that a rule should not be issued. Such a rule may contain a provision delaying its effective date for such period (not in excess of ninety days) as the Secretary determines may be necessary to insure that affected employers and employees will be informed of the existence of the standard and of its terms and that employers affected are given an opportunity to familiarize

themselves and their employees with the existence of the requirements of the standard.

(5) The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

* * *

(7) Any standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure. Where appropriate, such standard shall also prescribe suitable protective equipment and control or technological procedures to be used in connection with such hazards and shall provide for monitoring or measuring employee exposure at such locations and intervals, and in such manner as may be necessary for the protection of employees. In addition, where appropriate, any such standard shall prescribe the type and frequency of medical examinations or other tests which shall be made available, by the employer or at his cost, to employees

exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure. In the event such medical examinations are in the nature of research, as determined by the Secretary of Health and Human Services, such examinations may be furnished at the expense of the Secretary of Health and Human Services. The results of such examinations or tests shall be furnished only to the Secretary or the Secretary of Health and Human Services, and, at the request of the employee, to his physician. The Secretary, in consultation with the Secretary of Health and Human Services, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning, monitoring or measuring, and medical examinations, as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard.

(8) Whenever a rule promulgated by the Secretary differs substantially from an existing national consensus standard, the Secretary shall, at the same time, publish in the Federal Register a statement of the reasons why the rule as adopted will better effectuate the purposes of this Act than the national consensus standard.

OSH Act § 6(f), 29 U.S.C. § 655(f):

(f) Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtieth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary. The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be

conclusive if supported by substantial evidence in the record considered as a whole.

Regulatory Provisions Being Challenged

29 U.S.C. § 1917.71:

* * *

(i) Vertical tandem lifts. The following requirements apply to operations involving the lifting of two or more intermodal containers by the top container (vertical tandem lifts or VTLs).

(1) Each employee involved in VTL operations shall be trained and competent in the safety-related work practices, safety procedures, and other requirements in this section that pertain to their respective job assignments.

(2) No more than two intermodal containers may be lifted in a VTL.

(3) Before the lift begins, the employer shall ensure that the two containers lifted as part of a VTL are empty.

Note to paragraph (i)(3): The lift begins immediately following the end of the prelift required by paragraph (i)(5) of this section. Thus, the weight may be determined during the prelift using a load indicating device meeting Sec. 1917.46(a)(1)(i)(A) on the crane being used to lift the VTL.

(4) The lift shall be performed using either a shore-based container gantry crane or another type of crane that:

- (i) Has the precision control necessary to restrain unintended rotation of the containers about any axis,
- (ii) Is capable of handling the load volume and wind sail potential of VTLs, and
- (iii) Is specifically designed to handle containers.

(5) The employer shall ensure that the crane operator pauses the lift when the vertically coupled containers have just been lifted above the supporting surface to assure that each interbox connector is properly engaged.

(6) Containers below deck may not be handled as a VTL.

(7) VTL operations may not be conducted when the wind speed exceeds the lesser of:

- (i) 55 km/h (34 mph or 30 knots) or
- (ii) The crane manufacturer's recommendation for maximum wind speed.

(8) The employer shall ensure that each interbox connector used in a VTL operation:

- (i) Automatically locks into corner castings on containers but only unlocks manually (manual twistlocks or latchlocks are not permitted);
- (ii) Is designed to indicate whether it is locked or unlocked when fitted into a corner casting;
- (iii) Locks and releases in an identical direction and manner as all other interbox connectors in the VTL;
- (iv) Has been tested and certificated by a competent authority authorized under Sec. 1918.11 of this chapter (for interbox connectors that are part of a vessel's gear) or Sec. 1917.50 (for other interbox connectors):
 - (A) As having a load-bearing surface area of 800 mm² when connected to a corner casting with an opening that is 65.0 mm wide; and
 - (B) As having a safe working load of 98 kN (10,000 kg) with a safety factor of five when the load is applied by means of two corner castings with openings that are 65.0 mm wide or equivalent devices;

(v) Has a certificate that is available for inspection and that attests that the interbox connector meets the strength criteria given in paragraph (i)(8)(iv) of this section; and

(vi) Is clearly and durably marked with its safe working load for lifting and an identifying number or mark that will enable it to be associated with its test certificate.

(9) The employer shall ensure that each container and interbox connector used in a VTL and each corner casting to which a connector will be coupled is inspected immediately before use in the VTL.

(i) Each employee performing the inspection shall be capable of detecting defects or weaknesses and be able to assess their importance in relation to the safety of VTL operations.

(ii) The inspection of each interbox connector shall include: a visual examination for obvious structural defects, such as cracks; a check of its physical operation to determine that the lock is fully functional with adequate spring tension on each head; and a check for excessive corrosion and deterioration.

(iii) The inspection of each container and each of its corner castings shall include: a visual examination for obvious structural defects, such as cracks; a check for excessive corrosion and deterioration; and a visual examination to ensure that the opening to which an interbox connector will be connected has not been enlarged, that the welds are in good condition, and that it is free from ice, mud or other debris.

(iv) The employer shall establish a system to ensure that each defective or damaged interbox connector is removed from service.

(v) An interbox connector that has been found to be defective or damaged shall be removed from service and may not be used in VTL operations until repaired.

(vi) A container with a corner casting that exhibits any of the problems listed in paragraph (i)(9)(iii) of this section may not be lifted in a VTL.

(10) No platform container may be lifted as part of a VTL unit.

(j) Transporting vertically coupled containers.

(1) Equipment other than cranes used to transport vertically connected containers shall be either specifically designed for this application or evaluated by a qualified engineer and determined to be capable of operating safely in this mode of operation.

(2) The employer shall develop, implement, and maintain a written plan for transporting vertically connected containers. The written plan shall establish procedures to ensure safe operating and turning speeds and shall address all conditions in the terminal that could affect the safety of VTL-related operations, including communication and coordination among all employees involved in these operations.

(k) Safe work zone. The employer shall establish a safe work zone within which employees may not be present when vertically connected containers are in motion.

(1) The safe work zone shall be sufficient to protect employees in the event that a container drops or overturns.

(2) The written transport plan required by paragraph (j)(2) of this section shall include the safe work zone and procedures to ensure that employees are not in this zone when a VTL is in motion.

29 C.F.R. § 1918.85

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(m) Vertical tandem lifts. Operations involving the lifting of two or more intermodal containers by the top container shall be performed following Sec. 1917.71(i) and (k)(1) of this chapter.