Comment Info: ==========

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March 19, 2008

OSHA Docket Office
Docket No. OSHA-S049-2006-0675
US Department of Labor•
Room N-2625
200 Constitution Ave NW
Washington DC 20210

Re: •Docket No. OSHA-S049-2006-0675
•General Working Conditions in Shipyard Employment; Proposed Rule

Dear Sir or Madam:

Thank you for the opportunity to submit comments regarding your Proposed Rule: Docket No. OSHA-S049-2006-0675, General Working Conditions in the Shipyard Employment.

Part A of this letter includes most of our general comments regarding the Proposed Rule.
Part B of this letter includes the detailed comments relating to the specific sections of the Proposed Rule.

Both parts are of equal significance and we ask that you would please carefully review them and make the appropriate considerations and applicable changes per our requests.

Thank you for your valuable time and effort.

Respectfully submitted.

Philip Dovinh

As NFPA (National Fire Protection Association) Certified Marine Chemists working in this region continually for over 75 years, serving shipyard employment, shipyards, vessel owners, and ship repairers, U.S. Navy, USCG, NOAA, Washington State Ferries, Alaska Marine Highway System, we would like to submit the following sets of comments:

Part A: General Comments Regarding the Proposed Rule:

It would have been significantly beneficial to our Shipyard Employment in the Pacific Northwest (Washington, Oregon, and Alaska) had you extended the comment deadline 90 days beyond that of March 19, 2008. The extension would have given our industry sufficient time to read, study, review, and properly comment on the details of the many issues and changes that you have proposed.

Please keep in mind that ?Shipyard Employment? in our region is comprised of the fishing industry, shipyards and independent ship repairers.

Currently, there are only a few large shipyards remaining, a handful of medium-sized shipyards and fishing fleets, and numerous other small ship repairers and fishing vessels, including the vessel owners and their crewmembers.

For many of these companies, the people responsible for employee safety and compliance with the regulations have restricted time, limited resources and may have other job functions within the same company. They are the people tasked with the difficult and time-consuming duties to keep their workers safe during all phases of ship operations, repair and maintenance. They are also the same people that must keep abreast of all applicable regulations.

We feel that Shipyard Employment in our region has not been adequately represented during the drafting and initial development process of the Proposed Rule and that our industry has not been given sufficient time to review and comment on the many issues that might affect its existence and functionality.

Since the Proposed Rule implicates significant changes and additions to our Shipyard Employment, the 90-day comment period allotted for our industry was just too short! Many of those affected did not have sufficient time to read, to comprehend, to ask questions, to get answers, to discuss, to review, and to submit decent comments back to your office. This comment period also happened to fall on the time of the year when many vessel owners, operators, and/or repairers were busy working out at sea.

We also feel that the ?Economic Impacts? as analyzed by OSHA in the Preliminary Economic and Regulatory Flexibility Screening Analysis (Docket S049 Exhibit 17) grossly underestimated the costs of implementing the Proposed Rules by Shipyard Employment in our region.

A large part of Shipyard Employment in the Pacific Northwest hinges closely on to the success or failure of the fishing and fish processing industry. Because the fishing industry in our area is cyclical, one ?bad? year or even a single ?loss? season of fishing may in turn result in two or three abominable years for the rest of Shipyard Employment.

The ?minimal potential impact on both prices and profits? as stated in your report may not be applicable to the Shipyard Employment in the Pacific Northwest because both prices and profits do not remain constant in our region. In fact, they do vary greatly from year to year, and from season to season, and sometimes day to day.

Hence, the conclusion made by OSHA ?that the proposed regulation is economically feasible? definitely may not be appropriate or applicable to our region.

We ask that you would carefully look into this ?regional? issue further so that Shipyard Employment in our area of the country might not be unintentionally jeopardized in terms of economic impacts while trying to implement the Proposed Rule.

We feel that ? 1915.89 Control of hazardous energy (lockout/tagout) (a) Scope, application and purpose, as proposed by OSHA is confusing and needs to be streamlined and simplified.

Logout/tagout operations and requirements on ships or in the marine industry are inherently different from those of general industry. The Ship Repair industry and Shipyard Employment needs to have a unified standard when it comes to lockout and tagout.

By having a unified standard on lockout/tagout, everyone in our industry?from the safety professionals to the chief engineers, from the skippers to the foremen, from the machine operators to the deckhands, from the ship superintendents to the laborers, from the vessel repairers to the tank cleaners, from the electricians to the mechanics, from

the boilermakers to
the pipe fitters, from the port engineers to the Marine Chemists, from the Competent Person to
the Fire Watches, etc. ?would be applying and working under one set of lockout/tagout
regulations. And that would truly enhance safety and minimize the loss of lives, limbs, and
property.

Finally, we also think that OSHA has rushed through the process of putting this Proposed Rule
together. It seemed that OSHA did not adequately consult our industry or may have consulted
part of our industry, but only to some limited extent prior to publishing the Proposed Rules in the
Federal Register, Thursday, December 20, 2007.

The language used in the following sections is often unclear, ambiguous, open-ended, and
leaves amble room for erroneous or misinterpretations which may result in unnecessary but
costly modifications and/or potential citations: ?1915.81 Housekeeping, ?1915.82 Lightning,
?1915.83 Utilities, ?1915.84 Work in confined or isolated spaces, ?1915.85 Vessel radar and
radio transmitter, ?1915.87 Medical services and first aid, ?1915.88 Sanitation, and ?1915.89
Control of hazardous energy (lockout/tagout).

Many phrases and words used in the Proposed Rule were undefined, poorly defined,
incompletely defined, vague, indefinite or ambiguous. Definitions are an extremely important part
of any successful regulation.

OSHA may have misled the reader that their set of definitions is just an incomplete after-thought
as represented in the current Proposed Rule. Section 1915.95 Definitions, is awkwardly buried in
the last section of Subpart F-General Working Conditions.

Why not be consistent and place it immediately following ?1915.80 Scope and application?as in
the rest of the other OSHA regulations? By having the definitions located immediately at the
front of the Proposed Rule, they will grab the attention of the reader and become much more
beneficial.

For example, ?1915.89 Control of hazardous energy (lockout/tagout): The term ?hazardous
energy? could not be found anywhere in 29 CFR 1915 or in the ?Definition? of ?1915.95 in the
Proposed Rule.

There was a definition given for ?Hazardous or toxic substances? listed right below the definition
for ?Energy source?, but OSHA failed to specifically define the term ?hazardous energy??which
of course is the crux of that section.

We don?t believe that OSHA intended for a reader to combine the definition of ?Hazardous or
toxic substances? with that of ?Energy Source? to come up with the definition for ?Hazardous
Energy?.

The term ?Energy source? is incompletely defined as ?Any source of electrical, mechanical,
hydraulic, pneumatic, chemical, thermal, or other energy.?

Does the term ?other energy? include kinetic, potential, gravitational, elastic, electromagnetic,
nuclear, mass, high-intensity light, UV light or radiation, ultrasonic, vibrations, RFs, biological,
metabolic processes, lightning, static electricity, momentum, caloric, wind, solar, etc??

It?s important to realize that any one of these energy sources may have harmful affects on the
workers being exposed?we are certain that dosage is the only determining factor between life
and death for them.

We ask that you do a better job of defining all the important and relevant terminologies in a simple manner, but complete and logically. When the workers in Shipyard Employment understand clearly the core definitions of your regulation as well as your intention and requirements, their working environment will be that much safer.

Although not perfect, the set of Hexavalent Chromium Standards is an excellent example of OSHA?s abilities. Our Shipyard Employment would like to have and highly deserve an independent set of Lockout/Tagout Standards to cover the whole marine industry, similarly-designed and as well-written as those of Chromium (VI) Standards:

•General Industry Standard?1910.1026 Chromium (VI)
•Shipyard Standard?1915.1026 Chromium (VI)
•Construction Standard?1926.1126 Chromium (VI)

The Hexavalent Chromium Standard for each industry listed above is similar in many ways, but each has its own independent set of requirements and applicable exceptions. They were written clearly and readability is exceptional?and all of the definitions were listed at the beginning, immediately next to the ?Scope? of the standard.

Part B: Detailed Comments Relating to the Specific Sections of the Proposed Rule:

1) We suggest that the ?1915.95 Definitions should be changed to ?1915.81 Definitions, and be placed immediately following ?1915.80 Scope. This will give the reader immediate access to the terminologies used throughout this Subpart. It would also be consistent with the format and layout already used in most of other OSHA regulations. Please re-number the other sections accordingly.

2) ?1915.81 (c) The employer shall ensure that only tools, materials, and equipment necessary to perform the job in progress are kept on walking surface and working surfaces. All other tools, materials, and equipment shall be stored or located in an area that does not interfere with walking and working surfaces.

Walking surfaces should be kept clear of all tools and equipment at all times?portable welding machines, generators, blowers and ventilation equipment, gas cylinders and fire extinguishers, welding leads, cable s and hoses, pressure washers, pumps, etc?all are necessary during hot work, repair or maintenance operations, and could easily block a walk way?hence potentially hindering an emergency escape. A walking surface can become a working surface when the repair is required?only then tools and equipment may be placed on the walking surfaces as needed to successfully complete the job.

3) ?1915.81 (e) Please define the term ?solid and liquid wastes?. Do you mean feces and urine, trash or garbage, industrial chemical solid and liquid wastes, or solid and liquid parts of fish or other seafood products? During fish processing, it is not rare that workers stand on, step on or stand near or within the vicinity of solid and liquid parts of fish and other seafood products.

4) ?1915.81 (g) It is impossible to eliminate slippery conditions, such as snow and ice, on walking and working surfaces as they occur while the workers are working on vessels operating out at sea or pier side. The workers often have to work under all elements of the weather, out on in the open deck of the vessel whether trying to catch fish or crab, burning

or welding, painting or
needle gunning, operating equipment or processing fish. Rain, snow and ice are often part of the
Shipyard Employment livelihood.

5) ?1915.81 (h) On a ship operating out at sea, no matter how or where the construction
materials or other bulk cargoes are stacked, even if they were palletized and lashed down, there
is always some inherent hazard associated with that operation. The inherent hazards may
include falling objects, crushing, as well as possible fires.

6) ?1915.81 (j) Please define the term ?fire-resistance containers?. How much ?fire-resistance? is
required for the container? During a shipboard fire, ?? to ?? steel bulkheads of the fuel oil tanks
or the freezer holds lined with polyurethane insulation may never be ?fire-resistance? enough!

7) ?1915.81 (k) Please defined the term ?combustible scraps?. Do you mean rags, slag, molten
metals, chunks of hot steel plates, chunks of polyurethane insulation, cardboard boxes, trash,
ropes, fish heads and guts, etc?

8) ?1915.82 (c) Please define the term ?Handheld portable lights?.

9) ?1915.82 (c)(3) Please define the term ?gas-free?. ?Gas-free? is not defined anywhere in the
current OSHA regulations. It is not defined in any NFPA regulations. It is not defined by NIOSH
or ANSI.

The USCG does have a definition for ?gas-free?. If that is the same definition that you wish to
use, it should be defined clearly.

10) ?1915.83 (1) A pressure gauge and a relief valve are installed at the point where the
temporary steam hose joins the vessel?s steam piping system; The above section contradicts
with this section: ?1915.83 (5) The relief valve is positioned or placed in a location where it is not
likely to cause injury if it is activated.

One of the main purposes of installing a pressure gauge inline is for the worker to be able to
visually see and detect overpressures. The requirement of having a relief valve installed right
next to the pressure gauge might endanger the worker each time he or she approaches to check
the pressure. If the pressure were too high, and the pressure relief valve ruptured just as the
worker was reading the gauge, the superheated steam would burn his or her face instantly.

The pressure gauge and the relief valve should be located at least 15 to 20 feet apart. The
pressure loss of steam within 50 to 100 feet of piping is very negligible and most likely not even
detectable on the pressure gauge. Better yet, require the relief valve be installed outside, in the
open air whenever possible, away from the pressure gauge, where the worker most often makes
visual inspections.

11) ?1915.84 (a) How often is ?frequently?? How often should we check during each work shift?
Is the inspection of the confined or isolated spaces performed each work shift or each day by
the Shipyard Competent Person ?frequently? enough?

12) ?1915.84 (b) How do you want our industry to ?account? for an employee at the end of each
work shift? Does clocking out at the end of the work shift or clocking in at the next morning
constitutes accounting?

13) ?1915.85 (a) The terms ?radar?, ?radio transmitter?, ?energizing? or ?emitting? are not well
defined. Are the little two-way handheld radios, CB radios, or heavy-duty radars and sonar

equipment capable of transmitting and receiving communication signals, such as those installed
on large processors, container vessels, Navy and USCG vessel all applicable under the
requirements of this section? How about regular radios and communication equipment on smaller
vessels?

We would like to know whether or not your intentions are similar to those requirements
established by the US Navy and the USCG pertaining to aloft radiating, energizing, emitting, and
rotating equipment?

14) ?1915.85 (b) Please define the terms ?hazardous energy? and ?control of hazardous energy.?
The core application of this section is intimately related to the concept of ?hazardous energy? but
that term is not defined anywhere in the Proposed Rule!!! Please see additional details listed in
Item #30 below.

15) ?1915.85 (c) How to determine ?minimum safe distance?? Which safety parameters should
be used in making the determination of minimum safe distance? ?Minimum safe distance? in one
operation may not be sufficient in another. Not only that, applying ?minimum safe distance? alone
does not guarantee complete worker safety.

16) ?1915.86 (b) During certain USCG inspections or safety training and exercises, shipmates
and crewmembers are often hoisted up and down in the lifeboats. Would you consider providing
some provisions or exceptions for these safety-training exercises?

17) ?1915.87 (a) What do you mean by ?readily accessible?? Do you mean easy to approach,
reach, enter, or use? Or do you mean time constraints or limits?

Do you require that medical services and first aid must be given within a certain amount of time,
say five minutes from the time the accident happened? Many accidents in Shipyard
Employment often required as much as 30 minutes or longer before the victims can be helped.
Is the employer liable if the injured employee was not treated within a certain time frame?

Could the requirements of ?1915.87 Medical services and first aid be substituted with the
availability of a public professional emergency responder, such as the local fire department,
paramedics, or HazMat response team?

18) ?1915.87 (b) What do you mean by ?readily available?? Do you minutes, hours, days, or
weeks?

19) ?1915.87 (c) Please define ?work location?. Would a whole aircraft carrier, a super tanker, a
container vessel, or a 50-acre shipyard be considered as one work location? If a repairer were to
have 40 employees working in twenty tanks on a large vessel?would those 20 tanks constitute
20 different locations?

20) ?1915.87 (f) What is the reason for installing, inspecting, servicing, and maintaining basket
stretchers throughout the vessel, or vessel sections when the emergency responders from the
local fire department, police department, or the USCG would not use them? The standing
policies of these agencies are to only use their own equipment.

Could the requirements of ?1915.87 (f) be substituted with the availability of a public professional
emergency responder, such as the local fire department, paramedics, or HazMat response
team?

21) ?1915.88 (a)(1) What do you mean by ?readily accessible?? Do you mean

easy to approach,
reach, enter, or use? Or do you mean time constraints or limits? Please define ?readily
accessible.?

22) ?1915.88 (a)(2) Please define the terms ?clean? and ?sanitary?. ?Clean?, ?sanitary? and
?serviceable? are only relative terms. How clean, or sanitary, or serviceable must each sanitation
facility be?

It?s a fact that the toilets in any institution, facility, or industry may become ?un-clean? or ?un-
sanitary? with just after one use! We hope that OSHA doesn?t intend to require the employers be
responsible for cleaning these toilets immediately after each use, or each time they become not
?clean? or not ?sanitary?. It?s more practical and applicable to encourage the employers to
maintain a regular housekeeping schedule of some sort.

23) ?1915.88 (c) Non-potable water used for other purposes such as firefighting and cleaning
outdoor premises might be pumped up from rivers, lakes, ponds, canals, bayous, bays, etc?
(Some city ordinances, USCG, and state environmental laws do not permit this practice.) The
water from many of these sources most likely contains low doses of various kinds of chemicals,
drugs, hormones, heavy metals, organics, FOGs, and possibly fecal matter and coliform from
humans or animals. Hence, the term non-potable water.

The contaminants in these waters may vary by the minute. It might be costly if the employers
were not allowed to use these waters in non-potable operations. It would definitely be more
costly and almost impossible for the employers to have to test for all of the contaminants in the
water prior to each use.

Would you consider allowing the use of gloves, or appropriate PPEs and the use of proper
decontamination for those employees affected? We believe it would be much more effective,
feasible, and realistic.

24) ?1915.88 (d)(3)(4), ?1915.88 (e)(3) ?Clean?, ?sanitary? and ?serviceable? are only relative
terms. How clean, or sanitary, or serviceable must each sanitation facility be? Please define the
terms ?clean? and ?sanitary?. The toilets in many places, not just within the shipyard employment
facilities, may become ?un-clean? or ?un-sanitary? just after one use?should the employer be
responsible for cleaning these toilets after every use?

25) ?1915.88 (h) Realistically, how can the employer actually ensure that food, beverages and
tobacco products are not being consumed or stored in any area where hazardous or toxic
substances may be present?

Shipyard Employment is inherently associated with areas where toxic substances may be
present.

We understand that the employers can make an effort to ask their employees not to consume
food or beverages in areas where hazardous or toxic substances may be present, but there is no
practical way for the employers to ensure that their employees will not violate this rule.

For example, to ensure that some employees are not consuming certain tobacco product such
as a nicotine patch or a nicotine chewing gum, the employer would have to require the employee
to partially remove his shirt or open his mouth for visual inspection and detection of the patches
or the chewing gum. In fact, many workers use the nicotine patches or chew because they work
in a potentially hazardous and flammable area and could not smoke.

26) ?1915.88 (i)(i) Please define the term ?leak-proof?. Do you mean leak-proof as in absolutely
having no solids, liquids or gases leaking through the bottom, side or top of the container? The
process of gas leaking/evaporation or stinky odors dissipating (?leaking?) through the top of the
waste disposal receptacle constitute a violation?

27) ?1915.88 (i)(2) Please define the terms ?uncovered garbage? or ?garbage?. There are many
instances in Shipyard Employment when workers may be working on, near, or in the vicinity of
?uncovered garbage?.

The difficulty is in the differentiation of what may look like ?garbage? and what constitutes actual
garbage. As we all familiar, ?One man?s trash is another man?s treasure!?

This section of the Proposed Rule may give rise to numerous misinterpretations and opposing
opinions.

28) ?1915.88 (j)(2) OSHA defined ?vermin? to include insects, birds, and other animals, such as
rodents and feral cats, which may create safety and health hazards for employees.

Does this definition include animal species regarded as pests or nuisances and especially to
those associated with the carrying of disease?

Can the term ?vermin? include seagulls, pigeons, eagles, rabbits, foxes, coyotes, wolves, rats,
mice, mosquitoes, flies, cockroaches, ants, termites, raccoons, squirrels, bed bugs, bats,
carpet beetles, firebrats, fleas, hornets, mealworm beetles, chipmunks, gophers, moles,
silverfish, woodlice, wasps, woodworms, weevils, etc?.?
Many of these ?vermin? are often detected in Shipyard Employment, some are even considered
as ?friends? to the employees! To ?implement and maintain an effective control program? as
required in this section would probably be very expensive, near impossible, or even illegal?
many species listed above, including seagulls and eagles, are ?frequent fliers? at fish processing
plants, packing plants, canneries, and fish processors?both on shore and on vessels floating
on water.

Please define the terms ?reasonably practicable? and ?effective control program.?

In practice, there might be strong disagreements among the many employers, employees,
contractors, and OSHA Inspectors as to what is ?reasonably practicable?. It is often very difficult
to ?understand? what exactly ?effective? means or how ?effective? should the vermin control
program be executed or maintained. Is 95% eradication of all ?vermin? considered ?effective? or
would 5% do? For some, 5% would already be more than ?reasonably practicable.?

Not only it?s impractical and costly, but might also be illegal to terminate many of the ?vermin?
species listed above, just because they ?may create safety and health hazards for employees.?

29) ?1915.89 Control of hazardous energy (lockout/tagout). We believe that this section is poorly
written and extremely confusing. Not only that, it requires Shipyard Employment to use different
sets of regulations for lockout/tagout. There are so many overlapping activities involving
operations of equipment versus equipment maintenance versus ship repairs. Even the brightest
supervisors or workers may have difficulties in determining which, when, or where to apply
?appropriate? lockout/tagout procedures and requirements.

OSHA should provide the Shipyard Employment an independent and unified

version of the
lockout/tagout requirement?specifically tailored-made for the marine industry/Shipyard
Employment.

The following sections illustrate the numerous areas where the workers or supervisors might get
confused:

?1915.89 (a)(1) ?This standard covers the servicing and maintenance of machines, equipment
and system??1915.89 (2)(i) This standard applies to the control of hazardous energy during
servicing and maintenance... ?1915.89 (2)(A) Servicing of ship?s systems by any employee?
?1915.89 (2)(B) Servicing of machines, equipment and systems??1915.89 (2)(ii) Normal
production operations are not covered by this standard (See subpart O of 29 CFR part 1910 and
subpart H of this part for machine guarding). Servicing and/or maintenance which takes place
during normal production operations is covered by this standard only if?.

Confusing regulations or difficult-to-read regulations will not prevent accidents but might
otherwise contribute or cause other accidents to happen.

30) ?1915.89, ?1915.89 (2), Please define the terms ?hazardous energy? and ?control of
hazardous energy.?

The core application of this section refers to ?hazardous energy? but that term is not defined
anywhere in the Proposed Rule. The terms ?energy source ?and ?hazardous or toxic substances?
are defined, but incompletely defined, in our opinion. When the meanings these two terms are
combined, they would not produce the proper or intended meaning of ?hazardous energy.?

We feel that it?s pertinent that OSHA defines what ?hazardous energy? is and what other factors
constitute or contribute to that definition. Without the proper definition of ?hazardous energy? in
this Proposed Rule, the whole concept of ?Lockout/Tagout? is lost or no longer relevant! Workers
must first understand what ?hazardous energy? is then secondly, try to prevent themselves from
getting hurt or killed by uncontrolled ?hazardous energy.?

?1915.89 (a)(3)(i) The term ?stored energy? is not defined. What exactly does OSHA mean by
?stored energy??

?Energy source? is defined as ?any source of electrical, mechanical, hydraulic, pneumatic,
chemical, thermal, or other energy.? A careful reader will also realize that in this particular
definition, the term ?other energy? is also not defined?a major deficiency. Please see below.

Isn?t it true that ?stored energy? means potential energy stored by any of the ?energy sources?
defined above plus also the possibility of energy given off by batteries, steam, solar, radiation,
wind, lightning, static electricity, magnetic, biological processes, various radiations, etc??

The innocent-looking potable water tanks, brine tanks, or ballast tanks full of water are all
sources of stored energy that could kill people if ruptured in an accident. The fuel oil tanks, lube
oil tanks, waste oil tanks, hydraulic oil tanks, or even the sewage tanks are even more deadly
sources of stored energy, especially during a fire or explosion.

In Shipyard Employment, all of the springs or coils, tight ropes, suspending chains and cables,
harnesses, lanyards, straps, hung or stacked objects that have mass, welded structures and
bulkheads, combustible fuels and cargoes, combustible insulations, paneling or even packaging
cartons are all sources of ?stored energy,? although, some are more deadly

and more obvious than others. In fact, anything that might burn, for example, a Styrofoam coffee cup, is a source of ?stored energy?!

Are all employees required to be trained and instructed according to ?1915.89 (b) when they are working on or near any of the ?stored energy? sources (described above) that ?might release energy and cause injuries?? Maybe the term ?release energy? should also be carefully defined.

We strongly believe that a major section of 1915.89 Control of hazardous energy (lockout/tagout) has been poorly written and presented. It should be and should be carefully reexamined and rewritten.

We strongly suggest that OSHA work closer with our industry to produce a more uniform and user-friendly Lockout/Tagout program for Shipyard Employment.