#### MINISTRY OF DEFENCE

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#### New Delhi, the 22nd December 2008

# Regulations for Handling of Explosives at the Port of JNPT, Uran, Navi Mumbai by the Indian Navy

- No. 02—The Central Government hereby makes the following regulations for the import/export, transportation and handling of explosives at the Port of JNPT, Uran, Navi Mumbai by the Indian Navy.
  - Responsibility for handling All physical handling operation connected with explosives at the Port of JNPT shall, be done under the control and direction of the Rep of Chief General Manager, Naval Armament Depot, Mumbai (NAD, Mumbai). The Port Authorities and FOCINC WEST will ensure provision of facilities and other requirements as laid down in these regulations. Ships carrying break bulk explosives as well as ships carrying standard ISO containers containing explosives will be berthed at berth No CB of (JNPCT) & CB 05 (NSICT) and the explosive consignment will be loaded directly, as far as possible into wagons / road vehicles authorized for carrying explosives under the supervision of personnel of Naval Armament Depot, Mumbai. The authorities responsible for all activities related with explosive handling of explosives at JNPT Port are detailed below:-

SI No	Activity	Authority responsible
a)	Intimation regarding the arrival of vessel with cargo details and forwarding of original shipping documents and copy of contract to NAD, Mumbai and copy of shipping document and copy of contract to EMB HQ, Mumbai	Service HQs / DGOF / Any Other agency.

SI No	Activity	Authority responsible	
b)	Liaisoning with Port, shipping agents and Custom authorities	NAD, Mumbai / EMB HQs (MB)	
c)	Security and Fire cover at JNPT berth and transit storage	JNPT / HQ WNC	
d)	Fire Cover JNPT		
e)	Security	JNPT / HQ WNC	
f)	Projection of requirement of wagons and approach Army HQ (Dte of Mov) under advice to Embarkation HQ Mumbal for arranging wagons.  NAD, Mumbal / Mov (DD Mov)		
g)	Arrangement of wagons	Dte of Mov / EMB HQ Mumbai	
h)	Arranging and forwarding CFA sanction to NAD, Mumbai for hired transport for Road Move (in case movement by rail is not possible for any reason) on requirement basis	ADG Mov / Sponsoring Dte of Service HQs	
j)	Provisioning of armed escorts on requisition by NAD, Mumbai	Respective service HQrs / Consignee	
k)	Ensuring safety precautions during explosive handling	NAD, Mumbai / JNPT Port	
1)	Filling of bill of Entry and Customs clearance	NAD, Mumbai / EMB HQ (MB) / Shipping agent	
m)	Filling documents with Port	NAD, Mumbai / EMB HQ(MB) / Shipping agent	
n)	Providing equipments for unloading and loading	JNPT Port (special handling equipment if any by consignee/consignor)	
p)	Providing infrastructure for unloading and loading and placement of wagons including wharf railway sidings.	JNPT Port	
q)	Accounting of packages at the time of embarkation / disembarkation & during delivery and clearing shipping documents of vessels	NAD, Mumbai / Shipping agent	
r)	Conducting marine survey wherever necessary	NAD, Mumbai / JNPT Port Shipping Agent	

SI No	Activity	Authority responsible	
s)	Obtaining delivery orders from shipping agents and taking delivery from JNPT Port	NAD, Mumbai / EMB HQ (Mumbai)	
t)	Dispatch of consignment and issue of Military credit note	NAD, Mumbai	
u)	Correspondence with service HQrs for contract copies and shipping documents required for customs clearance and scrutiny of various bills.		
v)	Correspondence with service HQrs for correct copies and shipping documents for arranging payments	EMB HQ, Mumbai	
w)	Scrutiny of bills, issue of certificate for the services utilized against various bills and forwarding the same to EMB HQ Mumbai for arranging payments.	NAD, Mumbai	
x)	Preparation and forwarding of various monthly, quarterly returns, out turn reports, sitreps and outreps	NAD, Mumbai	
y) ,	Arranging payments for various bills, related to explosive handling and dispatch of consignment	EMB HQ, Mumbai	
<u>z)</u>	Entering annual Rate contracts for the various services required in aid of explosive handling in consultation with NAD, Mumbai		
ia)	Lodging and pursuing claims	EMB HQ, Mumbai	
ab)	Training of personnel involved in explosive handling at JNPT to be organised.		

#### 2. Definition -

- (i) **Explosives** include approved Service explosives and ammunition of all types and all explosives in the authorized List of Explosives, issued from time to time, by the Chief Controller of Explosives, Government of India.
- (ii) 'Government Explosives' are the explosives which are the property of the Indian Defence Forces or being supplied against a contract on their behalf.
- (iii) 'Gross Weight of Explosives' means the weight of the explosives, incendiary, smoke or pyrotechnic substances together with the case, envelope or the contrivance in which they are contained and of any package thereof.
- (iv) 'Net Explosives Quantity' is the total net weight of the explosive, incendiary smoke and/or pyrotechnic substances in a lot, batch or consignment of explosives.

- (v) 'Charge Weight Ratio' is the percentage of the explosive, incendiary, smoke or pyrotechnic substances in a piece of ammunition or a package in relation to its gross weight.
- (vi) 'Quantity Distance' is a distance or distances; required to be observed in the location / berthing of a ship, barges, building or stack containing explosives from other ship, barges, buildings, roads and railways or public places that will ensure minimum practical risk to life and property should an explosion or fire occur involving the explosives.
- (vii) 'Quantity Distance Categories' All Service explosives are classified under four categories according to the nature and degree of hazard involved viz.
- (a) <u>Category HD 1.1</u>: This division comprises ammunition and explosives which have mass explosion hazard. The major hazards of this division are blast, high velocity projections and other projections of relatively low velocity. The explosion results in severe structural damage, the severity and range being determined by the amount of high explosive involved.
- (b) <u>Category HD 1.2</u>: This division comprises ammunition and explosive which have a projection hazard but not a mass explosion hazard. This explosion results in items burning and exploding progressively, a few at a time.
- (c) <u>Category HD 1.3</u>: This division comprises ammunition and explosive which have a mass fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.
- (d) <u>Category HD 1.4</u>: This division comprises ammunition and explosives which present no significant hazard.
- (viii) 'Service Headquarters' mean the IHQ / MOD (Army) in the case of Army, the IHQ / MOD (Navy) in the case of Navy, the IHQ / MOD (Air Force) in the case of Air Force and Directorate General of Ordnance Factories in the case of Ordnance Factories.
- (ix) "Shipping Category" All explosives other than those of the safety Category / Class have been assigned a Shipping Category 'B' (HD 1.2 and HD 1.3) or 'C' (HD 1.1) according to the nature and degree or risk involved as defined below:-

#### Shipping Category 'B' (HD 1.2 and HD 1.3)

Those explosives which have a fire or minor explosion risk but not the risk of mass explosion.

Shipping Category 'C'(HD 1.1)

Those explosives which have a mass explosion risk.

Note: When these explosives belonging to Shipping Category `B` marked with a double star are in the same vessel as explosive belonging to Shipping Category `C` and are not separated from such explosives either by the boiler room and engine room of the vessel or by a hold of the vessel; they will be deemed to be Shipping Category `C` explosives.

3. <u>Special Instructions</u>: As these regulations have been framed, following certain relaxations, it is of utmost importance that all safety measures as listed in the same are strictly observed.

#### 4. Maximum Quantity of Explosives Permitted to be Handled

- (i) Total gross tonnage of 800 metric tons subject to the limit of NEC of 25 Ton net for HD 1.1.
- (ii) For category HD 1.2, HD 1.3 and HD 1.4 can be handled without a restriction on quantity provided 135 m, 90 m, 25 m respectively fixed separation distance is observed.
- 5. <u>Authorised Explosives</u>: Only explosives approved by Government Department, service or civil, may be handled. The list of such authorized explosives is given in the classified list of Government Explosives and in the list of authorized Explosives issued by Government Authorities

# SAFETY ARRANGEMENTS AND OFFICERS / AUTHORITY RESPONSIBLE FOR THEIR ENFORCEMENT

Authority responsible for action

6. Notice of discharge of explosives – The Master of every ship, on entering the port shall declare to the Pilot, of the presence of explosives cargo and a list of them as required to be discharged.

Master of the Ship

7. The instructions for the Master of the ship carrying explosives on entering port —

The Master of such a ship will be required to comply with the following:-

Master of the Ship

(a) Ship shall display a red flag, not less than 1 m Sq during day time i.e. between the hours of sunrise and sunset. During Night time i.e. between the hours of sunset and sunrise she shall display a red light which should be so constructed as to give a clear uniform and unbroken light visible from a distance of 3 Kms. These shall be displayed on the mast head of the ship or on a staff 6 M higher than the deck. The Red light is to be displayed at a height greater than that of any other light carried by the vessel as navigational aid.

Master of the ship

(b) Every vessel wholly or partly laden with explosives shall lie singly.

Master of the ship

(c) The ship shall lie along Berth No CB 01 or CB 05 facing seaward and shall be on stem to be able to move out to the sea at short notice.

Master of the ship

(d) All ship's fire fighting hoses shall be rigged up and all other fire fighting appliances on ship kept in readiness for and during the explosives handling operations.

Master of the ship

(e) All hatches shall remain covered until permission to open them is received from representative officer.

Master of the ship

8. <u>Security Watch</u> - An effective anti sabotage and security watch shall be maintained at all times while the ship or vehicle loaded with explosives in alongside Berth No CB 01 or alternative berth CB 05 as the case may be and during the operation of loading / unloading of explosives.

Port Authority / HQ WNC / Representative Officer

9. Representative Officer - Authorised representative of Chief General Manager Naval Armament Depot, Mumbai shall work as Representative Officer. He shall be conversant with all the Regulations made by the Government of India regarding stowage of explosive and other dangerous loads on board ship and prohibition regarding stowage of other cargo in proximity to explosives.

Representative Officer

C-229 26

10. The Representative Officer shall compare the manifest and stowage plan of the ship with the Master of the ship and discuss with him the arrangements for the discharge of the cargo.

Representative Officer and Master of the ship

11. <u>Safety Precautions on ship</u> - Prior to the commencement of loading / unloading of explosive ammunition, the following safety precautions shall be observed:-

The Master of the ship is to ensure before hatches are removed that:-

(a) All ship's funnels, ventilators, galley smoke pipes are covered with suitable spark arrestors.

Master of the ship

(b) The wireless telegraph communications installation are disconnected.

Master of the ship

(c) No fires or naked lights or sources likely to give rise to sparks such as Railway locomotives, mechanically propelled vehicles unless fitted with spark arrestors are to be present or brought in the vicinity (within 30 meters) of the ship or place where handling of explosives is being carried out.

Master of the ship

#### NOTE :

(i)Railway locomotives should be electric, diesel engine or compressed air type.

Railway Authority

(ii) The civil and Naval police will also ensure the observances of the above within their powers Port Authority (Security Officer)

(iii) No bunkering is to be permitted while explosives are being discharged and hatches are open.

Master of the ship

# 12. Maintenance of Lifting Machinery Transport and Fire Fighting Equipment

(a) Shore fire fighting arrangements shall be maintained in serviceable and efficient condition and kept at alert. A fire float or suitable alternative fire fighting arrangement shall be available on the water front all the time. Hose shall be at hand in sufficient lengths so that all explosives and ammunition

JNPT Port Authority

12-393 GJ/2008

on the wharf and the decks of ships alongside can be reached immediately by the streams. The fire main system shall have pressure up to the last valve before the hose.

(b) All the lifting appliances both on ship and shore must have been tested to safe load.

Master of the ship / JNPT Port authorities and Representative Officer

## 13. Additional Safety Measures :-

The following measures shall be taken to promote safety:-

(i) Adjacent berths on either side of Berth No CB 01 or alternative berth CB 05 are to be kept vacant while handling of explosives is carried out on these berth.

Port Authority

(ii) No work is to be carried out on wharf side which is adjacent wharf of the berth at which explosives are being handled. No work other than explosive handling is to be permilled in the berth CB 01 or CB 05 at which the explosives are handled.

Port Authority

(iii) No cargo of inflammable or combustible nature is to be present on the CB 01 or CB 05 opposite the wharf on which explosive are being handled. No work to be permitted on adjacent wharf Including working of transfer cranes when containers containing explosive cargo being discharged from vessel berthed at JNPT berth No CB 01 or CB 05.

Port Authority

(iv) A suitable traverse of sand bags on the wharf including water front or steel barricades is to be provided to prevent entry of any unauthorized person. The yard area and the berth are to be kept under special supervision and arrangements with Naval Police and Civil authorities.

JNPT / HQ WNC

(v) A direct telephone connection is to be made available on board and the telephone number of the Fire Station, Deputy conservator of the Port and FOCINC WEST (CSO Ops / CGO) be prominently displayed.

Representative Officer

PART I-SEC. 3]

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(vi) No authorized person or persons under the influence of drink or drugs is to be allowed on board or in the vicinity of a ship into or from which explosives are being loaded / unloaded or on the wharf of jetty area when such operations are being carried out. Every person entering such area is liable to be searched when required. The number of personnel in the area is to be limited to that necessary for the efficient execution of the work on hand.

JNPT

(vii) Warning sirens are to be installed at the appropriate berths where explosives are handled to enable immediate evacuation of personnel in case of fire or any accident involving explosives. Access to fire fighting equipments on wharfs and ships is to be kept clear of all times.

JNPT

(viii) Wharfs, docks, sheds, buildings and their immediate surroundings are at all time to be kept scrupulously clean so as not to constitute a hazard.

JNPT

(ix) Smoking not permitted at or near the place where explosives are being handled. Any person going on board a ship carrying explosives and before entering any area where explosives are being handled is to deposit all smoking materials matches, lighters, cigarettes and similar articles in a place approved by the Representative Officer.

Port Authority / Representative Officer

(x) Master of the ship is to earmark a place for smoking by ship's company with the approval of the Representative Officer.

Master of the ship and Representative Officer

## 14. Restrictions

(i) Loading or unloading of explosives from the ship shall be carried out only during day time between the hours of sunrise and sunset unless specifically authorized by the Representative Officer with the prior approval of HQ WNC on consideration of operational necessity or urgency. At the end of the day's operation, the Representative Officer and Master of the ship shall ensure that the ship's hatches / holds have been closed.

Representative Officer and Master of the ship (ii) No artificial light other than electric light of approved design and in good condition shall be used during the loading and unloading of explosives and all due precautions shall be taken in arranging the lighting apparatus. Such apparatus, if possible, shall be removed from the holds, wherever the operation of loading or unloading ceases.

Representative
Officer Port
authorities and
Master of the ship.

(iii) Unless required by exceptional circumstances and so authorized by the Representative Officer, no explosive shall be unloaded on any wharf, jetty until the vessel or carriage by which it is be conveyed or removed there from shall be at the place in readiness to receive it.

Representative Officer

(iv) During loading or unloading of explosives, into or from a ship or a vehicles, only the minimum number of vehicles containing explosives essentially necessary for uninterrupted flow of work shall be present alongside the vessel at any time.

Representative Officer

(v) when operation of loading or unloading the explosives into or out of any vessel or vehicles has commenced, it shall be carried out to completion with due diligence and dispatch.

Representative Officer

(vi) While loading or unloading explosives, the the Representative Officer should, as far as possible arrange that the explosives with greater risk, i.e., category 1.1 are unloaded first and immediately removed from the Harbour area.

Representative Officer

(vii) If at any time during the operation of loading or unloading of explosives into or from a vessel becomes necessary to suspend operations, all explosives shall be placed under either in the ship's hold or in the transit storage place or if in extreme cases, explosives have to be left either on the ship's deck or on the wharf, quay or jetty, all necessary precautions shall be taken by the Representative Officer and Master of the ship to guard and Protect them in the best possible manner from any damage or from risk of any fire or explosion.

Representative Officer Master of the ship



(viii) Service explosives or Group 1 to 4 shall not be left exposed on the ship, deck or on the wharf quay or jetty. Under no circumstances, explosives Category 1.1 are to stay in Harbour area over night.

Master of the ship and Representative Officer

#### 15. Handling of Explosives

(i) All explosives packages shall be handled carefully. They shall not be dragged, rolled, thrown or roughly handled.

Representative Officer

(ii) When explosives are slung from or to a ship, all necessary precautions shall be taken to sling them in such a manner as to effectively prevent the possibility of a fall, "SAVE ALL" nets shall be rigged between ship and shore at all hatches where explosives are being loaded or unloaded.

Master of ship / Representative Officer

(iii) Cargo nets shall be taken during loading and unloading to prevent explosives from getting wet by rain. Protective covering shall be provided to prevent direct sunlight falling on packages. In heavy rain, working on explosive is to cease and hatches are to be closed unless specially authorized for urgent reasons by the Representative Officer. In such circumstances, if work is continued, necessary protection from weather is to be provided. During thunderstorm or local port storm signal of categories above No 3, work shall cease and all explosives shall be covered.

Representative Officer

(iv) When the loading of a vessel or a vehicle explosives is completed, the same shall, as soon as reasonably practicable, be taken out of the harbour area.

Representative with Officer

(v) Any explosive or ammunition which has been dropped from a height shall be treated as suspect.

Representative officer

(vi) Any incident of accidental dropping of an explosives packages into the sea shall be immediately reported to the HQ WNC and Port authority.

Representative Officer

(vii) The Representative Officer shall ensure that all broken packages contents of which may have been damaged shall be carefully set aside and reported to him for special inspection and repacking or disposal at a place specially earmarked for the purpose.

Representative Officer

(viii) Packages containing explosives shall not be opened on board ship.

Master of the ship & Representative Officer

(ix) No repair work of any kind shall be permitted on ships carrying explosive without permission in writing from the HQ WNC.

Master of the ship & HQ WNC

### 16. Precautions against Fire

(i) No petroleum products, spirit or other highly inflammable substances shall be handled in the vicinity of or store in the holds of the vessels into or from which explosives are being loaded or unloaded.

Port Authority & Master of the ship

(ii) No cotton waste or oil rags or similar material liable to spontaneous ignition shall be allowed in the holds of the ship, trucks and vehicles or other container, sheds or buildings whilst being used for conveyance, loading and unloading.

Master of the ship, JNPT Authority Representative Officer

17. Notwithstanding any of the foregoing provisions, all persons taking part in the loading or unloading of explosives into or out of any ship or vehicles shall through out such operations observe all due precautions for the prevention of accidents by fire or explosion and in particular shall abstain from any act which tends to cause fire or explosion and all such persons shall make every endeavour to prevent any other person for committing any such act and also to prevent any unauthorized person from approaching or being near the explosives.

Master of the ship & Representative Officer

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18. <u>Power to Exempt</u>: The Government of India may, in exceptional cases, and on such conditions, if any, exempt any consignment from the provisions of Regulation 4 of these regulations.

(IHQ / MOD (Navy) / DGONA File No. AS / 3309 / JNPT / 1987/D(N-II)/Ops/08)

D K BANERJEE Under Secy.

# ABBREVIATIONS USED IN THE GAZETTE OF INDIA NOTIFICATION NO. 02 DATED 22 DEC 08 REGARDING HANDLING OF EXPLOSIVE AT THE PORT OF JNPT BY INDIAN NAVY

SL NO	ABBREVIATIONS	FULL FORM
01	JNPT	Jawaharlal Nehru Port Trust
02	FOCINC, WEST	Flag Officer Commanding in Chief, West
03	JNPCT	Jawaharlal Nehru Port Container Terminal
04	СВ	Container Berth
05	NSICT	Nhava Sheva International Container Terminal
06	EMB HQ	Embarkation Headquarters
07	DGOF	Directorate General of Ordnance Factories
80	HQ WNC	Headquarters Western Naval Command
09	NAD, MUMBAI	Naval Armament Depot, Mumbai
10	DTE. OF MOV	Directorate of Movement
	(DD MOV)	(Deputy Director Movement)
11	ADG MOV	Additional Director General Movement
12	CFA	Competent Financial Authority
13	IHQ / MOD (N)	Integrated Headquarters / Ministry of Defence
		(Navy)
14	IHQ / MOD	Integrated Headquarters / Ministry of Defence
	(ARMY)	(Army)
15	IHQ / MOD (AF)	Integrated Headquarters / Ministry of Defence
		(Air Force)
16	HD 1.1	Hazard Division 1.1
17	NEC	Net Explosive Contents
18	CSO(Ops)	Command Staff Officer (Operation)
19	CGO	Command Gunnery Officer
20	STEC	Storage Transportation of Explosive Committee
21	Rep of	Representative of

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