Safe Britannia

FiFi Installation (Class 2 equipment)

3. PROCEDURES FOR OPERATION: (NEW SYSTEM)

INSTALLATION FIRE:

In the event of a fire incident on, an adjacent or remote platform, requiring the use of the external fire fighting equipment (as fitted on board Safe Britannia), the following course of action is to be taken;

A) Initial preparation:

- Vessel to be put into initial 'safe location' by Master, as appropriate.
- CEN / engine room department to be advised accordingly extent of incident, and number of external monitors required.
  Bridge also to confirm that there are no work vessels at aft end of Safe Britannia.
- Port and stbd cranes to be positioned in a secure / safe position (fwd).
- If any ballasting operations are being carried out, then these must be terminated immediately, unless it is for the security of the vessel.
- Dedicated person to proceed to remote cab, contact ECR (tel: 212) and Bridge (211). Standby to operate monitors.
- All monitors to be prepared for 'remote' operation by deck dept, as follows;
  a. all protective covers removed
  b. turbine exhaust hatches to be opened (monitors 2, 3 and 4), & check exh drain cap in position.
  c. all turbine local controls to set to "remote" (monitors 2, 3 and 4)
  d. all turbine local fuel oil valves to be 'open' position (monitors 2, 3 and 4)
  e. confirm to remote cab operator all monitors ready for use.
- Remote cab operator to confirm with ECR all deck preparation work complete, and check 'remote movement' of monitors.
  Also, request which monitors to be used (from ECR), and set relevant turbine control panel 'master switch' to "Remote".
- Engine room senior watchkeeper to confirm to remote cab operator fuel oil supply valves to turbines are 'open' (one in port eng room and one in stbd engine room).
- Engine room senior watchkeeper to prepare Hedemora diesel / pump ready for use.
- Bridge to be informed, system ready for use by ECR.
- Fire teams to be mustered at fire stations as required by Master / CEN.

B) Monitor operation:

- Upon confirmation from bridge that monitors to be utilised, the following supply pumps to be started from ECR;
  a. 1 x port monitor required = 2 x pump from port pump room
  b. 2 x port monitor required = 3 x pump from port pump room
  c. 1 x stbd monitor required = 2 x pump from stbd pump room
  d. 2 x stbd monitor required = 3 x pump from stbd pump room
  e. 4 x aft monitors required = all supply pumps (3 x stbd and 3 x port)

WEEKLY TEST:

Each week (if operation allows), all vessel external monitors, including original monitors (port aft main deck: 2 off) to be tested by engine room dept.
Monitors to be tested on an individual basis.

Note: Turbine monitors (2, 3 and 4) to be tested from "local" position one week, then "remote" the next week.

Confirm with Bridge that aft or port aft monitors can be run.
There should be no work vessels at aft end and Safe Britannia to be at a safe distance from adjacent platforms.
Test as follows;

A) Aft monitors (No's 2, 3 and 4):

- Remote cab to be manned and confirm to ECR (212).
  Test monitor movement controls prior to discharging water from monitor .
- Respective monitor to be prepared for running;
  a. protective cover over monitor to be removed
  b. turbine exhaust hatch to be opened, and check exhaust drain.
  c. turbine fuel oil valve to be 'open'
  d. turbine local controls to "remote" or "local" (depending on test)
  e. check oil level for turbine (in tank adjacent to turbine)
  f. check indicator lights (2 off) on battery charger are "green" (unit adjacent to turbine)
- Contact Bridge / DP desk, to inform of monitor test.
- Remote cab operator to contact ECR and request 2 off supply pumps for monitor on test. (either: 2 x ballast or 1 x ballast & 1 x FiFi supply)
  Also, that the port and stbd fuel oil supply valves in the engine, are 'open' for the turbines.
- Confirmation to be made to ECR, once water output from monitor
- 'Local' check at monitor to be made to confirm water flow for oil cooling (overboard).
- Turbine pump to be started (*as described in previous sections*), for respective monitor (either 'local' or 'remote')
- Speed to be brought up to 90% (check oil temp, pressure and exhaust gas temp)
- Remote cab operator to test monitor movement, in operation.
- Monitor to be run for minimum of **five minutes**.
- At completion of test, turbine to be brought slowly down to 'idle' speed (using "Throttle" switch), and 'idle' indicator light is illuminated.
- Allow turbine to 'idle' for **four minutes**. (check oil press, temp and exh gas temp).
- Turbine to be stopped (either 'local' or 'remote'), by pressing "Fuel" switch to off.
- Turbine control panel to be selected to 'off' on 'master switch'.
- At completion of all individual monitor tests, replace all protective covers and shut all turbine exhaust hatches (minimum of **30 minutes** after stopping turbine)

Safe Britannia

FiFi Installation (Class 2 equipment)

1. DESCRIPTION OF SYSTEM:

The external FiFi equipment on board Safe Britannia, was upgraded in September 2003, to incorporate Class Two equipment (see enclosed basic layout).

System requirements for Class Two FiFi include;

- 7200 m3/hr discharge of sea water
- 4 monitors at 1800 m3/hr per monitor
- length of individual monitor 'throw' to be 150m
- height of individual monitor 'throw' to be 70 m

Two additional FiFi supply pumps were installed, one in each pump room.
Each pump has a suction from the sea chest, that supplies the vessel fire pumps and discharges into the 'discharge line' from the existing ballast pumps (2 off), in their respective pumproom.
The capacity of each new FiFi supply pump is 1200 m3/hr, which is equivalent to the capacity of each ballast pump. Thus giving a total discharge capacity of 3600 m3/hr from each pumproom, with two ballast pumps running, in conjunction with the new FiFi supply pump.
With all six pumps running, a total of 7200 m3/hr of sea water will be supplied up to the monitors at main deck level.

Four additional monitors were installed on the main deck aft, three of which incorporate a gas turbine driven pump, and the fourth unit being a 'stand alone' monitor only.
Monitors are numbered 1 to 4, (from stbd to port), with monitors 1 & 2, being sited adjacent to stbd crane pedestal and monitors 3 & 4, being sited aft of the port crane pedestal.
Once sea water is being supplied to the monitors the 'throw capacity' for each monitor is increased by the following method;

- monitor 1: from original diesel driven pump in stbd engine room (Hedemora)
- monitors 2, 3 and 4: by individual gas turbine driven pump situated at monitor

All individual monitor movements are controlled by electric motors, mounted on the monitor and operated from a remote cab (situated on top of the main fabshop).

A minimum of two 'supply' pumps is required to 'feed' each monitor, for individual operation. Three 'supply' pumps are required to 'feed' two monitors.

The gas turbines for driving the 'boost' pumps on monitors 2, 3 and 4, are run on diesel fuel, supplied from the feed line for the main engines, at the lower deck level.
Turbines can be operated locally at their respective monitor or at remote operators cab.

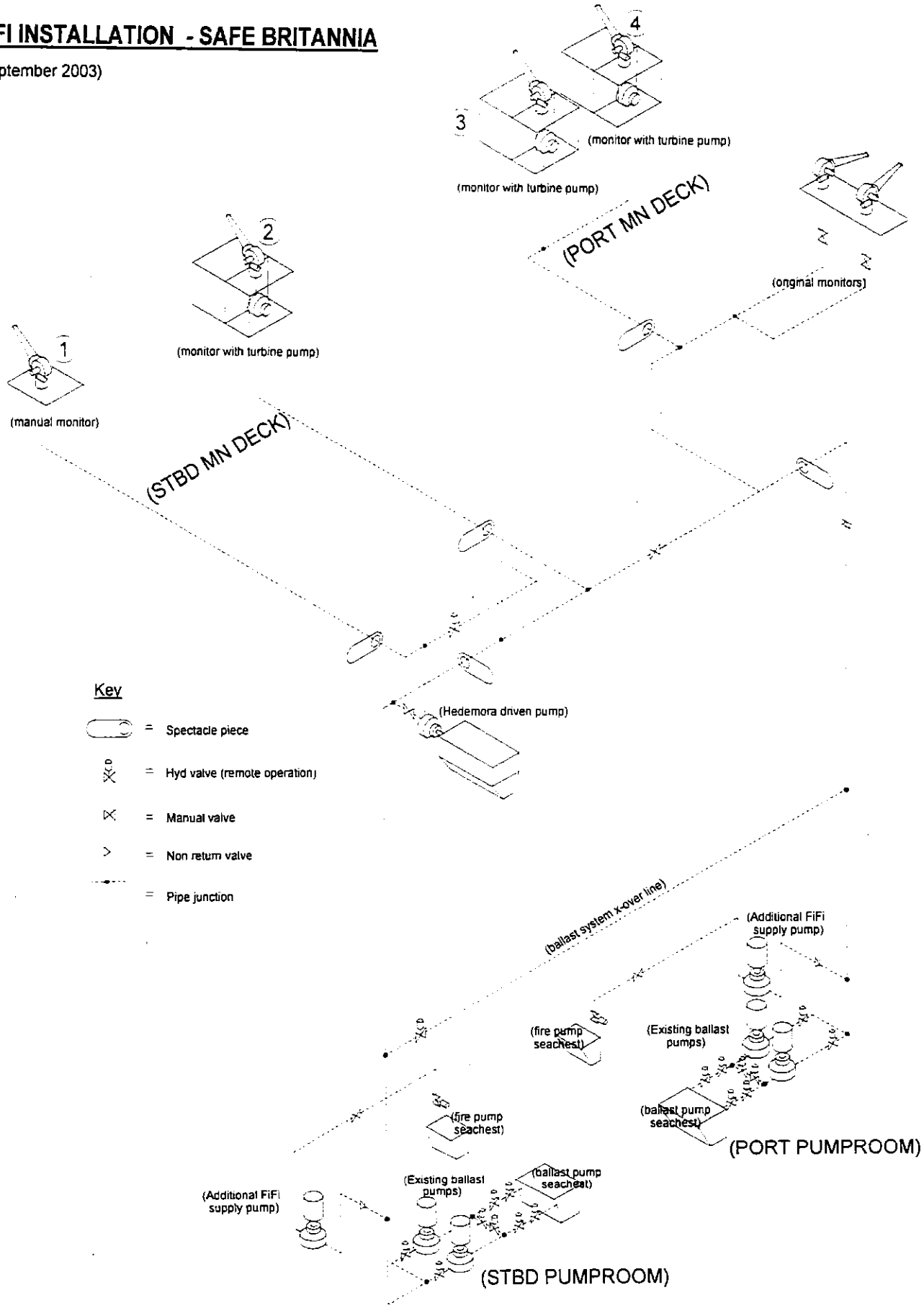
(Monthly: Aft monitors 2, 3 and 4 contd)

b. Hedemora diesel to be reduced to idle speed (900 rpm) at engine, and run at idle for a minimum of **four minutes.**
c. all 'running' turbines to be stopped (one at a time), by pressing "Fuel" switch to 'off' position.
d. Hedemora diesel to be stopped (local panel at engine).
e. All monitor supply pumps to be stopped and relevant valves closed, from ECR.

- All turbine control panels, 'master switch' to be selected to "Off" position, in remote cab.
- Remote cab operator to confirm to ECR, all monitors shut down and no water being discharged from monitors.
  Remote cab operator to confirm to Bridge / DP, test of monitors complete.
- Fuel oil supply valves for turbines (one port & one stbd), to be shut in engine room.
- Protective covers to be replaced on monitors.
- Turbine exhaust hatches to be closed after minimum **30 minutes** of stopping turbine

FIFI INSTALLATION - SAFE BRITANNIA

(September 2003)



DET NORSKE VERITAS

SURVEY REPORT
(PRELIMINARY)

Rev. 0.5

DNV id. no.	Order no.
12253	43030231

Name of vessel	Name of owner	Survey requested by
Safe Britannia	Prosafe Rigs / Manager Cotemar	OWNERS REPRESENTATIVE

FiFi II Statement of Fact

Scope of Survey

This is to confirm that the undersigned surveyor was requested to carry out the following surveys:

Compliance Survey for FiFiII Water Monitors and Pumps

Survey Result

By way of this statement we wish to advise that the Accommodations Vessel Safe Britannia DNV No. 12253 is currently classed a "FiFi One" Vessel under the DNV rules and is fitted with the following fire pumps and fire monitors.

1 X JMW Pump driven by a Hedemora diesel engine rated at 2400 M3 / Hr
2 X Skuteng Model FM 200 Monitors Rated at 1200 M3 / Hr each

DNV Surveyor Mr. Antony D'Souza witnessed test s of three SKUM Electrically controlled water monitors Model MK250/VR-250 and pump assemblies that had following serial number at Marine Turbine Technology's Facility at Port of West St. Mary in Louisiana, United States on 14th August 2003.

2003014
2003015
2003016

The performance of the stand alone monitor was witnessed by the undersigned on location in the Bay of Campeche.

Starboard outboard Stand Alone Water Monitor (Production number 505)

We confirm that the above four water monitors and pumps installed on board the Safe Britannia have been tested and found that the discharge capacity, length and height of throw that will when combined with the fire pumps currently installed on the vessel are equal or exceed the performance specifications which are required by the DNV rules to comply with FiFi II classification notation.

Station	Place of survey	Survey started	Survey completed	Stamp
HOUSTON	Bay of Campeche	9-30-2003	10-2-2003	DET NORSKE VERITAS 1864 HOUSTON

Lead surveyor's name	Lead surveyor's signature	For MTP use only
RIVENBARK, ED		
Surveyor's name	Surveyor's signature	

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FIFI INSTALLATION - SAFE BRITANNIA

(September 2003)