

ANGUS COUNCIL

ARBROATH HARBOUR JOINT CONSULTATIVE COMMITTEE

22 MAY 2009

ARBROATH HARBOUR - SPRING REPORT

REPORT BY THE DIRECTOR OF INFRASTRUCTURE SERVICES

ABSTRACT

This Report details ongoing operations at the Harbour since the previous meeting of the Arbroath Harbour Joint Consultative Committee (AHJCC), outlines plans for future programmes of works, and discusses contemporary matters of relevance to harbour activities.

1 RECOMMENDATION

- 1.1 It is recommended that the Committee agree to note and approve the contents of this Report.

2 ADMINISTRATIVE MATTERS**2.1 Financial Update to end of March 2008**

- 2.1.1 The unaudited financial statement for the period up to the end of March 2009 is attached as Appendix 1 to this report. This shows an overall position broadly in line with the budget provision for the year.

2.2 Port Marine Safety Code

- 2.2.1 With reference to item 2.1 (b) of the Minute of the Meeting of this Committee on 21 November 2008 a joint inspection of the harbour had been carried out in February 2009. The list of hazards identified and the current status of actions are given in Appendix 2 of this report.

- 2.2.2 At the time of writing this report T & N Gilmartin (Contractors) are still involved in carrying out snagging works at the harbour under the Environmental Enhancements project. While carrying out these works they will also carry out the items of work highlighted in the safety inspection report (Appendix 2 to this report).

2.3 Revision of Harbour Charges - Biennial Review of Charges for Implementation in April 2009

- 2.3.1 With reference to item 2.1(c) of the Minute of the Meeting of this Committee on 21 November 2008, it was agreed that the members' comments on the proposed charges would be taken forward for consideration by the Infrastructure Services Committee on 25 November 2009. After adjustments were made by the Head of Roads at the request of the members, the decision to approve the proposed changes was deferred to the Angus Council Committee on 19 February 2009. The revised charges were approved by the Angus Council Committee and came into force on 1 April 2009 for one year only until 31 March 2010. The proposed changes to the charges arising from the previous review will be further considered in Autumn 2009 (as agreed at the full council meeting of 19 February 2009) prior to introduction in April 2010.

2.4 Oil Spill Contingency Planning and Response

- 2.4.1 With reference to item 2.1 (d) of the Minute of the Meeting of this Committee on 22 November 2008, there have been no further significant pollution incidents in the harbour in the intervening period.
- 2.4.2 The Council continues to retain the services of a specialist contractor to deal with higher-level pollution incidents should they occur.
- 2.4.3 The Oil Spill Contingency Plan (November 2007) was updated and amended in February 2009. A copy of the Plan is available for inspection by the members of this Sub-Committee in the Harbour office.
- 2.4.4 Harbour staff have the resources themselves to deal with any lower level pollution incidents as may arise. The Harbourmaster has now attained an On Scene Commander's Course (MCA Level 4/5) and the Senior Harbour Assistant an On Scene Commander's Course (MCA Level 4). The two Harbour Assistants have attained an MCA Level 1 in Oil Spill Response Familiarisation.

2.5 Control of Tri-Organo Tins (TOT)

- 2.5.1 With reference to item 2.1 (e) of the Minute of the Meeting of this Committee on 22 November 2008, in all the tests to date from the inner and outer harbours and the wash down waters from the recycling system at the slipway the levels of Tri-organo tins (TOT) have been acceptably low. Results from recent sampling along with the acceptably low E Coli results from the recycled water from the wash down facilities at the slipway are attached in Appendix 3 to this report.

2.6 Scottish Ports Meeting

- 2.6.1 With reference to item 2.1 (f) of the Minute of the Meeting of this Committee on 22 November 2008, the minutes of the Scottish Ports Meeting held on 14 November 2008 are available for inspection by the members of this Sub-Committee in the Harbour office.
- 2.6.2 The most recent Scottish Ports Meeting was held on Thursday 23 April 2009, in Aberdeen and the agenda is attached in Appendix 4. The Harbour Master attended the meeting and will provide a verbal update on any pertinent issues.

2.7 Safer Ports Initiative 2

- 2.7.1 The Safer Ports Initiative, launched in 2002, promoted high standards of health, safety and skills in the ports industry. As a result there was a significant reduction in the ports industry accident rate which demonstrated the proactive work undertaken by the industry. The second phase – Safer Ports Initiative 2 – has now been introduced to build on these improvements further underlining the commitment to improving industry standards and to develop the synergy between health, safety and skills. The Harbourmaster was invited by the British Ports Association to attend the Safer Ports Initiative 2 (SPI 2) event hosted by Aberdeen Harbour Board on 22 April 2009 and will update this Committee on any pertinent issues.

2.8 Arbroath SEAFEST

2.8.1 With reference to item 2.1 (g) of the Minute of the Meeting of this Committee on 22 November 2008, regarding the Arbroath SEAFEST, there have been several committee meetings for this year's event and multi agency meetings are planned in the near future with the event organisers and emergency services. The SEAFEST is scheduled for 8 and 9 August 2009.

2.9 Maritime and Coastguard Agency (MCA) - Forth to Border and Tayside/North Fife Sub Committee

2.9.1 With reference to item 2.1 (h) of the Minute of the Meeting of this Committee on 22 November 2008, there is still no indication from the MCA of any meetings in 2009. The Harbourmaster will attend any meeting which is convened in the future.

3 ENGINEERING MATTERS

3.1 Replacement of Inner Harbour Gates

3.1.1 With reference to item 2.2 (a) of the Minute of the Meeting of this Committee on 22 November 2008, there has been one occasion, on 4 March 2009 when the gates failed to close. The cause of the failure was due to the electricians working in the Fishmarket who had switched the power off. This was noticed immediately and the power at the gates switched back on. Other than this one occasion the gates have been operating satisfactorily.

3.1.2 The opening and closing times of the gates have recently moved to the summer schedule and opening and closing times are routinely posted outside the Harbourmaster's office and on the security gate leading on to the pontoons, generally one month in advance. As requested by the Arbroath Sailing and Boating Club, opening times for the whole of the summer season have been produced and given to the club.

3.1.3 Due to the evidence of Accelerated Low Water Corrosion (ALWC), cathodic protection has now been applied to the harbour gates, as detailed in paragraph 4.1.1 of this report.

3.2 Pontoon Berths

3.2.1 As previously reported in item 2.2 (b) of the Minute of the Meeting of this Committee on 22 November 2008, the pontoon berths continue to be well used with a high occupancy.

3.2.2 Overall numbers on the waiting list remain high with circa 32 people on the list.

Infrastructure Repairs and Maintenance

3.3 Structural Works in Inner and Outer Harbour including West Breakwater repairs

3.3.1 With reference to item 2.2 (c) of the Minute of the Meeting of this Committee on 22 November 2008 advising that the examination of a number of structures had taken place, funding has been secured for a further phase of work on the main breakwaters and other structures as part of the programme of works as described below in Section 4.

3.4 Maintenance Dredging Operations

- 3.4.1 With reference to item 2.2 (e) of the Minute of the Meeting of this Committee on 22 November 2008, the dredger (The Shearwater) from the Moray Council arrived in Arbroath on 12 November 2008 to start dredging operations and completed the works on 6 December 2008. All areas identified by the Harbour Master in conjunction with the harbour users were targeted in these operations. Results of testing conducted on samples of the dredged silt taken during the 2008 dredging operations are not yet available and will be presented to the committee in the autumn report.
- 3.4.2 The dredging for 2009, which will be the second year of the three year dredging contract with Moray Council, is proposed for September/October 2009. Discussions have commenced with Moray Council to programme the visit of the Shearwater for this period.

3.5 Ladders and Handrails

- 3.5.1 With reference to item 2.2 (f) of the Minute of this Committee on 22 November 2008 a phased programme of installing handrails and repairs to steps is in progress with funding from the Roads and Transport Renewals and Repairs Fund in 2009/10. The harbour staff carry out a monthly inspection of the ladders and handrails in liaison with the harbour users and priority is given to items identified in the inspections.

3.6 Refurbishment of Harbour Area

- 3.6.1 With reference to item 2.2 (g) of the Minute of the Meeting of this Committee on 22 November 2009, phase 2 of the environmental enhancements was substantially completed in May 2008 with the additional works completed in November 2008. At the time of writing the report the contractor is working on the snagging items (refer paragraph 2.2.2) however it is anticipated that all outstanding snagging works will be completed at the time the committee meets.

4 FUTURE PROGRAMME OF WORKS

4.1 Infrastructure Repairs

4.1.1 Accelerated Low Water Corrosion (ALWC)

With reference to item 3.1 (a) of the Minute of the Meeting of this Committee on 22 November 2008, licorr Ltd. (Aberdeen) have now installed a cathodic protection system to the harbour gates. This work was carried out during the low tides in March 2009. licorr Ltd. are now due to return to site next month to assess the anodes and make any minor changes that are required as a result of their assessment.

- 4.1.2 Once the cathodic protection system on the harbour gates has been assessed as per paragraph 4.1.1, it is proposed to discuss various other protection systems with licorr Ltd. to trial on the worst affected areas of sheet piles within the harbour, as detailed in a previous report to Committee (Report No. 1237/08 refers). Designs will then be progressed with the intention of installing the systems during the summer months.

4.2 West Breakwater Masonry Repairs

With reference to item 3.1 (b) of the Minute of the Meeting of this Committee on 22 November 2008, Tayside Contracts were the successful tenderer for this project following approval from Infrastructure Services Committee on 15 December 2008 (Report No. 1237/08). Due to delays in securing suitable sub contractors and concerns regarding carrying out the work in the winter months, work did not commence until 20 April 2009 and is anticipated to be on site for 10 weeks.

4.3 Flood Prevention

With reference to item 3.1 (c) of the Minute of the Meeting of this Committee on 23 May 2008, low cost measures to prevent flooding in several areas around the Sail Cloth store have been considered. A number of holes have been cored in the sea wall at Danger Point to alleviate any flooding in this area by allowing the seawater which comes over the wall at this point back into the sea. Also a 500mm high demountable flood prevention barrier has been installed at the entrance to McKay Boatbuilders' premises. This can be put in place when high tides are expected which will prevent seawater which comes over the South Breakwater from entering the boatyard and flooding the workshops during storm conditions.

4.3.1 After various consultations it has been decided that the proposal to replace a section of wall with an open railing at the parapet of the bridge would prove ineffective. Given the existing ground levels and the crossfall of the existing road, the amount of water which would escape back into the Brothock Burn would only be a small percentage of the amount of water which comes over the South Breakwater.

4.3.2 From the attached Safety Audit (Appendix 2 of this report) one of the points raised was the flooding of McKay Boatbuilders during high tides and storm conditions from the Brothock Burn. T & N Gilmartin (Contractors) will be constructing a 500mm high concrete block wall behind the existing boatyard fence to prevent the water from the Brothock Burn entering the boatyard during these events

4.4 Diesel fuel dispensing facilities and storage compounds

4.4.1 With reference to item 3.2 of the Minute of the Meeting of this Committee on 22 November 2008 the Council are acting to comply with the Water Environment (Oil Storage) (Scotland) Regulations 2006 sections 20 and 36(2) and (3), and Schedule 2 of The Water Environment and Water Services (Scotland) Act 2003 by considering the installation of a new diesel fuel dispensing facility in the harbour by April 2010. This new facility would be managed by the harbour staff. The Council are currently seeking a contribution to funding for the facility from the European Fisheries Fund.

4.4.2 Following an audit by the Maritime and Coastguard Agency (MCA) on 11 December 2008 the fuel dispensing facilities were identified as a high risk source of pollution & identified corrective action which was required. A further tank audit by Briggs Marine & Environmental Services was carried out in January 2009. Their report is attached in Appendix 5 to this report. This audit again identified the poor condition of the tanks & recommended a temporary double skinned, banded fuel tank be installed instead of using the current tanks. However the Council's proposals are to install a new permanent fuel dispensing facility therefore a temporary arrangement is not being pursued at this time.

4.4.3 The existing fuel tanks have now been removed and the facility is therefore no longer available either through the AFA or otherwise. The facility for the provision of diesel dispensing will be restored once new infrastructure has been provided by the council.

4.5 Crew Room

4.5.1 With reference to item 3.3 of the Minute of the Meeting of this Committee on 22 November 2009, it is still proposed to provide a separate 'crew room' facility for leisure craft users in the future. It is anticipated to submit a bid for some funding for 2010/11 budget along with bids for possible grants with proposals being developed in due course.

4.6 Potential Programme

With reference to item 3.5 of the Minute of the Meeting of this Committee on 22 November 2008, Table 1 below details the estimated cost of works being progressed in 2009/10.

Table 1 – Cost Estimates of Works in 2009/10

Arbroath Harbour Proposed Work in 09-10	Cost Estimate £
Infrastructure Repairs incorporating West Breakwater Masonry Repairs (£255,000) & ALWC works (harbour gates & sheet piles £70,000)	325,000
New fuel dispensing system	130,000
Annual Dredging	40,000
Handrails and other minor works	10,000
Total	505,000

Table 2 details the possible continuing programme in later years.

Table 2 – Cost Estimates of Future Works

Arbroath Harbour Future Works	Cost* Estimate £
Arbroath Harbour Infrastructure Repairs (Breakwaters)	500,000
Total	500,000

*April 2009 prices

4.6.1 Members should note that there is provision for the works shown in 2009/10 in Table 1 within the 2008/2012 Financial Plan and the 2009/10 Revenue Budget. Future works are currently the subject of ongoing consideration/investigation and further reports, including full details of the financial implications and funding mechanism, will be brought forward to future meetings of this Committee for information and to the Infrastructure Services Committee/Angus Council for determination as appropriate.

5 OTHER ISSUES

5.1 Arbroath Fishermen's Association (AFA) Operations

5.1.1 It is understood that the AFA ceased trading on 31 March 2009 but do not have a definite date for vacating their existing premises. Details of the current tenants in the Black Shed have been forwarded to the Council's Roads Division. The Council will now be dealing direct with these tenants. Discussions are on-going with the Council's Property Services Division as to how the leasing arrangements will be dealt with into the future.

5.1.2 Although council officials have been advised that the AFA is no longer trading as a corporate body it is understood that the Association at present continues in existence. Accordingly it would seem appropriate that the Association's representatives on this committee continue to represent the interests of the commercial fishing (larger vessels) operating from the harbour at this time.

5.2 Work Place Inspections

5.2.1 A series of inspections of the premises operated by the harbour were undertaken in spring 2008. Several shortfalls in storage arrangements were identified and new provisions have been made.

5.2.2 The inspections also identified concerns regarding ageing electrical systems and the Council's electrical engineers were asked to inspect the premises and advise on any works necessary. Subsequently orders were placed to deal with the electrical systems in the harbour office and the store and the staff messing area in the fish-market building. The works to upgrade these buildings were carried out and completed in April 2009.

5.2.3 During the inspections there were also several safe working practices which were identified and reviewed. Subsequently amendments have been considered necessary and have been put in place to address the findings.

6 FINANCIAL IMPLICATIONS

6.1 Any financial implications arising indirectly from this report will be subject to approvals at the relevant Council committees in due course.

7 HUMAN RIGHTS IMPLICATIONS

7.1 There are no human rights implications arising from the proposals in this report.

8 EQUALITY IMPLICATIONS

8.1 Consideration of the issues dealt with in this report indicates that an [equalities impact assessment](#) is not required.

9 SINGLE OUTCOME AGREEMENT

9.1 This report contributes to the following local outcome(s) contained within the Single Outcome Agreement for Angus.

We value and enjoy our built and natural environment and protect it and enhance it for future generations.

- The importance and benefits to society of the environment is recognised.

10 CONSULTATION

- 10.1 The Chief Executive, Director of Corporate Services, Head of Finance and Head of Law and Administration were consulted in the preparation of this report.

ERIC S LOWSON
DIRECTOR OF INFRASTRUCTURE SERVICES

NOTE:

No background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information) were relied on to any material extent in preparing the above Report.

Roads/BF/TM
22 April 2009
REPORTS/AHJCC.spring.09

APPENDIX 1**Angus Council: Roads Division, Infrastructure Services Department****Revenue Outturn To End of March 2009**

	<u>Budget</u> <u>2008/09</u> £	<u>Unaudited</u> <u>Actual</u> <u>2008/09</u> £	%	<u>Variance</u> £
<u>ARBROATH HARBOUR</u>				
<u>Expenditure:</u>				
Staff Costs	90,753	96,737	106.59%	5,984
Property Costs	21,000	28,318	134.85%	7,318
Supplies & Services	64,000	60,786	94.98%	(3,214)
Transport Costs	0	0	-	0
Third Party Payments	26,247	24,030	91.55%	(2,217)
CFCR	40,000	40,000	100.00%	0
GROSS EXPENDITURE	242,000	249,871	103.25%	7,871
GROSS INCOME	110,000	127,500	115.91%	(17,500)
NET EXPENDITURE 08/09	132,000	122,371	92.71%	(9,629)

APPENDIX 2

**PORT MARINE SAFETY CODE
HARBOUR SAFETY AUDIT
23 MARCH 2009**

Inspected by: **B. Fleming, Design Engineer**
 G. Mair, Harbourmaster

Activities	Action	Priority
<p>1. Main Harbour access adjacent to East Breakwater</p> <p><i>Hazards</i></p> <p>i) Area of setts at south end of slipway bridge to be re pointed</p> <p>ii) Rusty brackets & bolts on South Breakwater wall</p> <p>iii) Painted 'Slow 10 mph' markings on the ground starting to fade</p> <p>iv) Boatyard flooding when seawater comes over South Breakwater during storm conditions</p> <p>v) Boatyard flooding when water from Brothock Burn rises & comes through fence at Sail Cloth Store.</p> <p>vi) Recess in pier required to be cut out at ladders 44, 46, 48 & 50 & additional rungs added</p> <p>vii) Hole in the quayside at SW corner of Outer Basin</p> <p>viii) Pointing in area of setts south of Slipway Bridge has deteriorated</p>	<p>Area of setts to be re pointed</p> <p>Brackets to be removed</p> <p>Re paint 'Slow 10 mph' markings on the ground</p> <p>Flood defence system to be installed in Spring 09</p> <p>Small wall required to be built along edge of Brothock Burn</p> <p>Works to fix ladders to carried out in Summer 09</p> <p>Hole to be filled in with concrete</p> <p>Area of setts to be re pointed in spring 2009/10</p>	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p>
<p>2. Signal Tower to Ballast Pier</p> <p><i>Hazards</i></p> <p>i) Hole in surfacing around lamp column</p> <p>ii) Concrete edging on Ballast Pier deteriorating & ladder is requiring new handrail</p>	<p>Hole to be filled in with concrete</p> <p>Carry out concrete repairs & replace ladder handrail</p>	<p>Medium</p> <p>High</p>
<p>3. Lifting Bridge to Black Shed</p> <p><i>Hazards</i></p> <p>i) No speed limit signs into harbour from Old Shorehead</p> <p>ii) Cars parking outwith parking bays on road over Brothock Burn & blocking access into harbour from Old Shorehead</p> <p>iii) Patch of asphalt surfacing missing beside sett area at seats</p>	<p>10 mph speed limit signs to be erected in 09/10</p> <p>Install double yellow lines from Old Shorehead into harbour access</p> <p>Repair surfacing</p>	<p>Medium</p> <p>Medium</p> <p>Low</p>

<p>4. Black Shed Pier</p> <p><i>Hazards</i></p> <p>i) Sections of stainless steel tie rails twisted & coming apart</p> <p>ii) Stainless steel fence at harbour gates loose</p>	<p>Angus Council in the process of obtaining quotations for replacement of tie rails in Spring 09</p> <p>New bolts required to hold down fence</p>	<p>High</p> <p>Medium</p>
<p>5. Fish Market</p> <p><i>Hazards</i></p> <p>i) Trip hazard on walkway when harbour gates are closed</p> <p>ii) Lamp column is damaged & is listing</p> <p>iii) No surfacing around lamp column & root box west of harbour gates</p>	<p>High visibility markings to be applied at join on walkway</p> <p>Lamp column to be repaired & straightened</p> <p>Area to be re surfaced.</p>	<p>Low</p> <p>Low</p> <p>Low</p>
<p>6. Oil Pier</p> <p><i>Hazards</i></p> <p>i) White lining required at Oil Pier to prevent public access</p>	<p>To be addressed as final when new fuel dispensing system is installed in 2009.</p>	<p>Medium</p>
<p>7. Road adjacent to Lifeboat Shed</p> <p><i>Hazards</i></p> <p>i) No speed limit signs into harbour at Lifeboat Shed</p>	<p>10 mph speed limit signs to be erected in 09/10</p>	<p>Medium</p>
<p>8. Car Parking adjacent to Shore</p> <p><i>Hazards</i></p> <p>i) No edge markings on steps in new seated area</p> <p>ii) Life buoy posts now in middle of pedestrian walkway</p>	<p>Edge markings to be added in Spring 09</p> <p>Life buoys & posts to be relocated behind railings</p>	<p>High</p> <p>Medium</p>

APPENDIX 3**SAMPLES TESTED FOR TRI ORGANO TINS (TOTS)**

Date	Description	Inner Basin (ug/L)	Inner Basin Silt (mg/kg)	Outer Basin (ug/L)	Outer Basin Silt (mg/kg)	Slip Way Silt (mg/kg)	Slip Way (ug/L)	Entrance Channel (ug/L)	Slipway Recycled Water (ug/L)
27/03/09	Organo Tin	<0.1		<0.1					<0.1
08/10/08	Organo Tin	<1		<1					<1
30/04/08	Organo Tin	0.11		0.06					0.07
01/10/07	Organo Tin	<0.003		<0.003					<0.003
18/09/06	Organo Tin	0.055	-	0.029	-	-	0.021	-	-
22/05/06	Organo Tin	0.01	0.0007	0.01	0.0007	-	-	0.01	0.2
11/01/06	Organo Tin	-	-	-	-	-	-	-	<0.1
28/02/05	Organo Tin	0.228	-	-	0.02	-	-	-	<0.1

1 mg/l (milligram/litre) is 1 part in 1,000,000

1 ug/l (microgram/litre) is 1 part in 1,000,000,000

1ng/l (nanogram/litre) is 1 part in 1,000,000,000,000

1 litre of water is equal in weight to one billion micrograms

1 ug/l equals 1 part per billion (ppb)

SAMPLES TESTED FOR E COLI

Date	Description	Slip Way Wastewater
27/03/09	E. Coli	ND*/100ml
7/11/08	E. Coli	ND*/100ml
30/04/08	E. Coli	ND*/100ml
1/10/07	E. Coli.	13cfu/100ml
18/09/06	E. Coli.	1/100ml
22/05/06	E. Coli.	ND*/100ml
11/01/06	E. Coli.	ND*/100ml
28/02/05	E. Coli.	ND*/100ml

*Not Detectable.

Cfu = Colony Forming Unit

APPENDIX 4

**Scottish Ports Committee Meeting
At the Marine Operations Centre, Pocra Quay, North Pier, Aberdeen
On Thursday 23 April 2009 at 10.00 am**

AGENDA

1. APOLOGIES

2. MINUTES OF PREVIOUS MEETING

To approve the minutes of the last meeting (Cyclo BPA/137/08 refers).

3. MATTERS ARISING

- Business Rates (item 4)
- Commission on Scottish Devolution (Item 5(v))
- Public Petitions Committee and Permitted Development Rights (Item 6)

4. PORTS POLICY

- To receive a report on Review of Trust Port Guidelines in Scotland (response to English/Welsh review attached).
- Municipal Ports – scope for a review.

5. MARINE AND PLANNING POLICY.

- Scottish Marine Bill – progress and setting up of Marine Scotland.
- Scottish Planning Policy (paper and extracts attached).

6. LOBBYING OF SCOTTISH PARLIAMENT

To consider recommendations of a paper prepared by Ken Gray of Cromarty Firth Port Authority (attached).

7. OFFSHORE RENEWABLES OPPORTUNITIES

To note report by BVG Associates and consider any future action (attached).

8. NAVIGATIONAL SAFETY

- To receive a report on progress of Port Marine Safety Code.
- Update on compliance exercise.

9. PORT SKILLS AND SAFETY

To receive an update from Nigel Parfitt.

10. ANY OTHER BUSINESS

11. DATE AND VENUE OF NEXT MEETING

12. PRESENTATIONS

To receive presentations from:

Professor George Fleming – Maintenance dredging and the Habitats Directive.
Cath Preston – update on Water Framework Directive consultation

APPENDIX 5ARBROATH HARBOUR**TANK AUDIT**

- The 3 main tanks are old ships boilers (single skinned) with ¼" corrosion on the bottom of 2 of the 3 tanks.
- The main 2" fuel lines are patched with denso and duct tape. The joints are also corroded and have soldered joints rather than welded.
- The bund is not capable of retaining a tank rupture as fuel would pass through and go straight into the harbour.
- The ground is saturated with oil that has accumulated over a period of time. The ground will need some sort of remediation work done when the tanks are removed. This could lead to extensive remedial work being required.
- The pump house needs to have the 2" fuel bunkering line replaced. There is also a potential ignition source, situated next to the house (a lamppost) and there is the potential that a burst or parted hose would let fuel go directly into the harbour.
- The pump house is also not banded.
- We would suggest that a temporary hired, double skinned, banded fuel tank should be installed, to eliminate/reduce the risk of a major failure and consequently a large oil spill.

Signed..... *A. Gavin*Date..... *21/1/09*

A member of the **Briggs** Commercial Ltd group
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