

**PULP MILL
MONITORING SYSTEM DESCRIPTION**

Revision	Date	Revision Description	Prepared	Reviewed	Approved
B0	19 October 2007	Revised following comments from DTAE	BY	RF	RF
C0	7 January 2010	Revised following comments from DTAE and updated submissions from suppliers reflecting changing technology	BY	CRD	LRB

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System:	Construction dust surveillance web cam
Purpose:	To monitor dust emissions during construction activities at the mill and wharf site. Construction activities have the potential to produce fugitive nuisance dust emissions that may adversely impact the nearest residential areas, being Rowella on the western shore of Long Reach.
Objectives:	To provide real time surveillance monitoring of dust emissions during daylight hours to detect unacceptable dust emissions and trigger management responses to mitigate those emissions.
Permit condition(s):	LU1 3AM13.1

Project phase(s): Construction Commissioning Operations

Schedule & permit condition & page number	Permit sequential page number	How the system meets the permit requirements
<p>LU1</p> <p>3AM13.1(a)</p> <p>108 of 201</p>	<p>121</p>	<p>The system comprises one camera, located on an existing building at the Fish Farm (see attached map) on the western side of the Tamar River where it has clear uninterrupted views of the mill and wharf sites. Although additional cameras could be added to the system if required and justifiable, the single camera is considered to provide adequate coverage and at this stage there is no reason to conclude that more are required.</p> <p>The proposed image resolution is of sufficient quality to depict a dust plume anywhere between the mill and wharf site. Data back up is available at the camera should the wireless link fail for any reason.</p> <p>The camera shall be mains powered with wireless link from the camera location.</p> <p>The system will provide real-time, streamed, date/time stamped images. Snapshot images will be archived every 10 minutes. It also stores continuous images to allow investigation of complaints.</p>
<p>LU1</p> <p>3AM13.1(b)</p> <p>108 of 201</p>	<p>121</p>	<p>The camera has software to allow pan, zoom capability and is controllable over the internet by the EPA using a supplied web based application.</p>
<p>LU1</p> <p>3AM13.1(c)</p> <p>108 of 201</p>	<p>121</p>	<p>The recording system includes a web based software package to access and control live and recorded images from the camera. This application also allows remote access to archived images stored on the server.</p> <p>For security, only authorised users shall have access to the system.</p> <p>The provider of the system will provide training to Gunns, its contractors and EPA to enable access to the system on any PC with internet access and the applicable software package.</p> <p>Gunns will provide the EPA with the appropriate software to allow secure, remote accessibility at any time.</p> <p>Gunns, the Site Construction Supervisor and EPA will have secure access at all times to the system.</p>

Notes

<p>The system is scheduled to be live before the commencement of earthworks (note that there will be vegetation clearing occurring prior to earthworks commencing and hence prior to the system being live).</p>
<p>The Site Environmental Manager and Construction Site Supervisors will regularly view the images, including during and immediately after daily blast activities, and take particular notice if the forecast wind direction is towards Rowella. The daily forecast will be a topic of the morning toolbox meetings applicable to the earthworks team.</p>
<p>The film footage from the camera will be reviewed jointly with the EPA to determine whether there were any instances where there was a determined dust problem that was not detected by the surveillance camera or where there was insufficient footage, or site records, to determine the source of a dust plume that would warrant action in accordance with the permit conditions. Any modifications to the monitoring regime would be done by agreement between Gunns and the EPA.</p>



Map showing location of camera