Annex 16.3

Baseline Noise Survey
Detailed Results

(ERM)
### Table C.1 Baseline Noise Levels - MEP (long term measurement)

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Average Day Time LA90</th>
<th>Average Night Time LA90</th>
<th>Average Day Time LAeq</th>
<th>Average Night Time LAeq</th>
<th>Average Day Time LA10</th>
<th>Average Night Time LA10</th>
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<tbody>
<tr>
<td>S1 Station Road</td>
<td>Thursday 9-12-2010</td>
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<td>Tuesday 14-12-10</td>
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<td>57</td>
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<td>Overall Level, RBL</td>
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<td></td>
<td>Friday 7-01-11</td>
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<td>Saturday 8-01-11</td>
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<td>Killingholme</td>
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<td>Tuesday 11-01-11</td>
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</table>
### NK1 Nicolson Road, North Killingholme

<table>
<thead>
<tr>
<th>Date</th>
<th>Thursday 9-12-2010</th>
<th>Friday 10-12-2010</th>
<th>Saturday 11-12-10</th>
<th>Sunday 12-12-10</th>
<th>Monday 13-12-10</th>
<th>Tuesday 14-12-10</th>
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<tbody>
<tr>
<td>Overall Level, RBL</td>
<td>37, 32</td>
<td>39, 34</td>
<td>37, 36</td>
<td>40, 37</td>
<td>41, 39</td>
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<tr>
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<td>44, 41</td>
<td>46, 51</td>
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<td>46, 46</td>
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<td>48, 48</td>
<td>48, 44</td>
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<td>Overall Level, RBL</td>
<td>37, 35 (32)</td>
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<td>37, 36</td>
<td>40, 37</td>
<td>41, 39</td>
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<td>49, 46</td>
<td>48, 46</td>
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<tr>
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<td>43, 48</td>
<td>43, 48</td>
<td>43, 48</td>
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<td>43, 48</td>
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</tbody>
</table>

Notes: All levels are dB(A). RBL values in brackets are the calculated RBL by the agreed determination method. Where the RBL is less than 30, a Rating Level of 35 dB(A) is applied.

Data for NK1 Nicholson Rd and S1 Station Road on Tuesday 14-12-2010 removed as unrepresentative. Overall level calculated by omitting the data for Tuesday 14-12-2010.

### EH5 Swinster Lane

<table>
<thead>
<tr>
<th>Date</th>
<th>Thursday 9-12-2010</th>
<th>Friday 10-12-2010</th>
<th>Saturday 11-12-10</th>
<th>Sunday 12-12-10</th>
<th>Monday 13-12-10</th>
<th>Tuesday 14-12-10</th>
</tr>
</thead>
<tbody>
<tr>
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<td>30, 29</td>
<td>35, 30</td>
<td>35, 30</td>
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<td>42, 37</td>
<td>44, 42</td>
<td>47, 39</td>
<td>47, 47</td>
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<tr>
<td>RBL</td>
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<td>37, 42</td>
<td>42, 43</td>
<td>39, 45</td>
<td>46, 46</td>
</tr>
<tr>
<td>Overall Level, RBL</td>
<td>35 (31)</td>
<td>35 (27)</td>
<td>46, 39</td>
<td>44, 43</td>
<td>38, 43</td>
<td>38, 38</td>
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</tbody>
</table>

### ECO1 Killingholme Haven Pits

<table>
<thead>
<tr>
<th>Date</th>
<th>Thursday 9-12-2010</th>
<th>Friday 10-12-2010</th>
<th>Saturday 11-12-10</th>
<th>Sunday 12-12-10</th>
<th>Monday 13-12-10</th>
<th>Tuesday 14-12-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Level, RBL</td>
<td>45, 40</td>
<td>43, 40</td>
<td>45, 45</td>
<td>42, 38</td>
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<td>51, 49</td>
<td>51, 44</td>
<td>53, 47</td>
<td>55, 55</td>
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<tr>
<td>RBL</td>
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<td>49, 53</td>
<td>52, 52</td>
<td>54, 54</td>
<td>55, 56</td>
<td>55, 45</td>
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<tr>
<td>Overall Level, RBL</td>
<td>43, 40</td>
<td>43, 40</td>
<td>53, 48</td>
<td>54, 54</td>
<td>54, 54</td>
<td>48, 48</td>
</tr>
</tbody>
</table>

Notes: All levels are dB(A). RBL values in brackets are the calculated RBL by the agreed determination method. Where the RBL is less than 30, a Rating Level of 35 dB(A) is applied.

Data for NK1 Nicholson Rd and S1 Station Road on Tuesday 14-12-2010 removed as unrepresentative. Overall level calculated by omitting the data for Tuesday 14-12-2010.

Location Eco1 was monitored for the purpose of assessing the acoustic environment for ecological receptors at the Killingholme pits – there are no residential receptors nearby to this location.
Measurement Position S1 Station Road (east)

16.3.1 The east end of Station Road defines a reasonably remote location on the bank of the Humber River; with little through traffic and remote houses about a coastal lighthouse.

16.3.2 The acoustic environment at location S1 is mainly influenced by marine related noise and distant road traffic noise.

Measurement Position S2 Station Road (adjacent to transport depot)

16.3.3 Located in the corner of the loading bay of Den Hartogh Logistics, the noise measurement location was selected to be generally equivalent to that experienced by the nearest residential building. This part of Station Road was observed to accommodate all through traffic for the neighbouring industrial area. Vehicles were noted to be approximately 50 percent HGV and 50 percent light vehicles (cars/vans etc) during each period.

16.3.4 With the exception of the local through traffic, the acoustic environment at S1 and S2 are quite similar in character. The acoustic environment at location S2 is mainly influenced by marine related noise, namely ships engine noise and loading activities, distant road traffic noise and, to a lesser extent industrial noise from the neighbouring refinery.

Measurement Position S3 Hazledene, Marsh Lane

16.3.5 The measurement location was situated approximately 10 m back from Marsh Lane, 5 m from the boundary in the agricultural field to the west of Hazledene, in free-field conditions and with line-of-sight to all surrounding areas.

16.3.6 The acoustic environment at location S3 is generally influenced by industrial noise, in particular flaring from the refinery, distant road traffic noise, and to a lesser extent marine related noise, and occasional rail movements to the south west.

Measurement Position SK2 Staple Road, South Killingholme

16.3.7 Off Staple Road in South Killingholme, the acoustic environment at location SK2 is generally influenced by a significant level of traffic noise from the A160 as a constant source was more apparent than industrial noise from the neighbouring refinery during the daytime.

Measurement Position NK1 Nicholson Road, North Killingholme

16.3.8 Moderate levels of ambient traffic noise from the A160 dual carriageway to the south could be heard as a constant source, and
industrial noise from the neighbouring refinery to the east was at a similar level. Levels of traffic noise from Eastfield Road to the east of the site were audible, but notably less than those from the A160.

**Measurement Position EH5 Swinster Lane, East Halton**

16.3.9 Moderate levels of ambient traffic noise could be heard as a consistent source in the distance towards the south-east and west of the site. Whilst ambient traffic noise to the west emanated from Townside road, traffic noise to the south-east is understood to be influenced by traffic to and from Immingham Docks.

16.3.10 At this measurement location, engine noise could be heard from the vessels at Immingham Docks, along with intermittent loading activities from the same area. Similar to that experienced at position S1 Station Road (east); loading noise would constitute of intermittent clatters and bangs, being heard over engine and vehicle movement noises.

16.3.11 The acoustic environment at location EH5 is generally influenced by road traffic noise, marine and industrial noise is assumed to have similar influences on the total noise levels measured.

**Measurement Position ECO1 North Killingholme Haven Pits**

16.3.12 Approximately 300 m south of Immingham Docks, the microphone was positioned on the north-east bank of Haven Pits, immediately north of the railway line and 10 m from the road side.

16.3.13 Environmental noise at ECO1 was dominated by activities from the Humberside Shipping Terminal (HST).

16.3.14 Industrial noise was noticeable emanating from the metal work yard to the east of measurement position ECO1 but the overall influence of noise from this source is considered to be relatively low when compared to noises from Immingham Docks.
Statistical Noise Levels
Eh5 Swinster Lane - Thursday 9 December 2010

![Graph showing noise levels and wind speed over time](image-url)
Statistical Noise Levels
Eh5 Swinster Lane - Friday 10 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Eh5 Swinster Lane - Saturday 11 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Eh5 Swinster Lane - Sunday 12 December 2010

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

L1  L10  L90  Leq  Rain >= 0.5mm  Mean Wind Speed m/s
Statistical Noise Levels
NK1 Nicholson Road - Thursday 9 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
NK1 Nicholson Road - Friday 10 December 2010

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

- L1
- L10
- L90
- Leq
- Rain >= 0.5mm
- Mean Wind Speed m/s
Statistical Noise Levels
NK1 Nicholson Road - Saturday 11 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Table:
Statistical Noise Levels
NK1 Nicholson Road - Sunday 12 December 2010

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

L1
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed m/s
Statistical Noise Levels
S1 Station Road - Thursday 9 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S1 Station Road - Friday 10 December 2010

- L1
- L10
- L90
- Leq
- Rain >= 0.5mm
- Mean Wind Speed m/s

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)
Statistical Noise Levels
S1 Station Road - Saturday 11 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S2 Station Road - Thursday 9 December 2010

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

L1  L10  L90  Leq  Rain >= 0.5mm  Mean Wind Speed m/s
Statistical Noise Levels
S2 Station Road - Saturday 11 December 2010

Sound Pressure Level, dB(A)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S2 Station Road - Sunday 12 December 2010

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

-40
-35
-30
-25
-20
-15
-10
-5
0
5
10
15
20

L1
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed m/s
Statistical Noise Levels
S2 Station Road - Monday 13 December 2010

![Graph showing statistical noise levels with various lines representing L1, L10, L90, Leq, Rain >= 0.5mm, and Mean Wind Speed m/s. The x-axis represents time (End of 15 Minute Sample Interval) from 00:00 to 00:00, and the y-axis represents sound pressure level (dB(A)) from 20 to 90. The wind speed (m/s) ranges from -40 to 20.](image)
Statistical Noise Levels
S2 Station Road - Tuesday 14 December 2010

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S3 Hazeldene, Marsh Lane - Friday 7 January 2011

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S3 Hazeldene, Marsh Lane - Saturday 8 January 2011

- L1
- L10
- L90
- Leq
- Rain >= 0.5mm
- Mean Wind Speed m/s

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S3 Hazeldene, Marsh Lane - Sunday 9 January 2011

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
S3 Hazeldene, Marsh Lane - Monday 10 January 2011

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Thursday 6 January 2011

Sound Pressure Level, dB(A)

Wind Speed (m/s)

L1  L10  L90  Leq  Rain >= 0.5mm  Mean Wind Speed m/s

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Friday 7 January 2011

- L1
- L10
- L90
- Leq
- Rain >= 0.5mm
- Mean Wind Speed m/s

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Saturday 8 January 2011

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Sunday 9 January 2011

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Monday 10 January 2011

Sound Pressure Level, dB(A)

Wind Speed (m/s)

Time (End of 15 Minute Sample Interval)
Statistical Noise Levels
Sk2 Staple Road, South Killingholme - Tuesday 11 January 2011

Time (End of 15 Minute Sample Interval)

Sound Pressure Level, dB(A)

Wind Speed (m/s)

L1
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed m/s