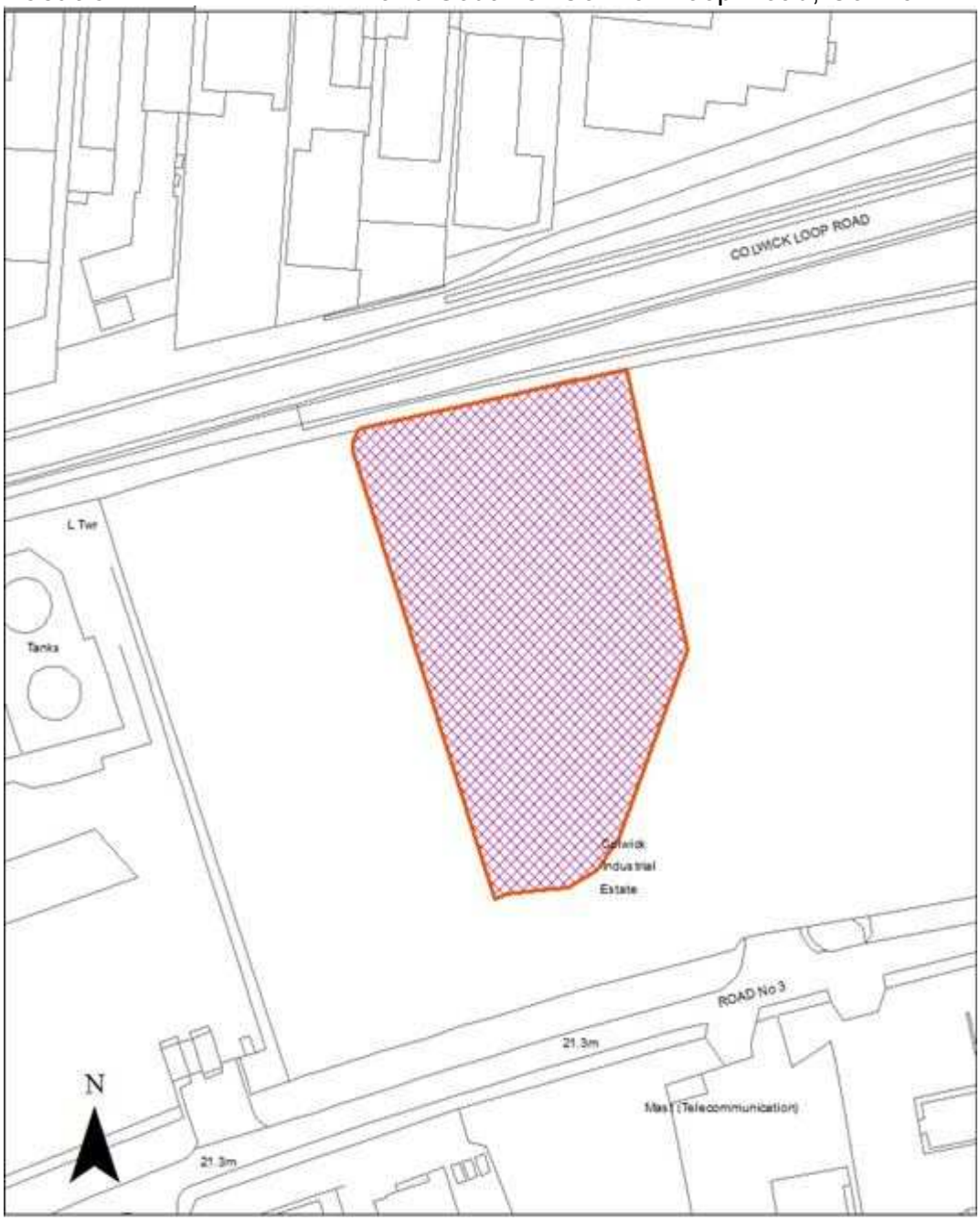
Application Number: 2014/0136

Location: Land South Of Colwick Loop Road, Colwick.



NOTE:

This map is provided only for purposes of site location and should not be read as an up to date representation of the area around the site.

Report to Planning Committee

Application Number: 2014/0136

Location: Land South Of Colwick Loop Road, Colwick.

Proposal: Construction of A4 public house with restaurant facilities & associated managerial residential accommodation at first floor (full application)& A3 restaurant or A5 hot food takeaway (outline application), discharge of condition 4.

Applicant: Sainsbury's Supermarket

Agent: Agent Indigo Planning Ltd

Background

The application raises complex planning issues because the site is located within the Development Proximity Zone (DPZ) of Total Lindsey Oil Refinery Terminal. For these reasons this it was resolved at Planning Committee that the discharge of condition 4 of planning permission 2013/0497 should be approved by Planning Committee.

This application is intrinsically linked to another planning application on this agenda, 2015/0587.

Site Description

The application site relates to former petroleum storage sites on land south of Colwick Loop Road, Colwick. Colwick Loop Road bisects the site and the industrial estate to the south from additional industrial properties to the north, and the residential area of Netherfield beyond.

The application site is brown field land and occupies a piece of land that has a boundary with Colwick Loop Road. It is approximately 70m to the east of the boundary to the Total Lindsey Oil Refinery terminal.(TOIL) The site was formerly part of the Chevron Fuel Terminal. To the south of the site is Road No. 3 and other industrial units, beyond which is the River Trent.

Planning permission was granted under 2013/0497 for a Marston's restaurant/pub and a drive through restaurant. The public house was granted detailed planning permission, whilst the application for drive through restaurant was in outline form only (with access included)

The public house would be of traditional design, and would have a mix of external finishes comprising of brick, render and wood cladding. The duo-pitched roofs would

be covered using slate coloured tiles. Details of the restaurant/takeaway's unit layout, scale, appearance and landscaping would need to be submitted as reserved matters.

The application was accompanied by various technical reports including an off- site risk Assessment which considered the risk posed by the presence of the adjacent Total Lindsey Oil Refinery. The Total site constitutes a hazardous installation to which PADHI (Planning Advice for Developments near Hazardous Installations) methodology is relevant. PADHI is the name given to the methodology and software decision support tool developed and used by the Health and Safety Executive (HSE). It is used to give land use planning (LUP) advice on proposed developments near hazardous installations.

PADHI uses two inputs to a decision matrix to generate either an Advise Against or Don't Advise Against response, based on:

> the zone in which the development is located of the three zones that HSE sets around the major hazard (Inner. Middle or Outer);
> the 'sensitivity level' of the proposed development which is derived from an HSE categorisation system of 'development types' .(with residential classed as more sensitive than workspace)

In addition to this modelling there is a Development Proximity Zone around specific hazardous Installations (such as TOIL) which attract further scrutiny by HSE.

The Health and Safety Executive advised against granting planning permission to 2013/0497 as the site lies within the DPZ of the Total depot on the grounds that in principle the uses proposed were unacceptable because of the potential risk to customer and staff.

However the Council resolved to grant Planning Permission to 2013/0497, as a condition could be imposed addressing that specific matter. Condition 4 of the permission allows the development to proceed if the risks to the customers and staff of the PH, restaurant and takeaway can be addressed, such as by preventative and protective measures.

Condition 4 states:-

"The public house or restaurant element shall not be brought into use until either:

a) The hazardous substances consents for both the Total Lindsey Oil Refinery Ltd and Chevron Ltd have been are revoked, or

b) A report relating to the respective element has been submitted to the LPA outlining the level of risk posed by the presence of the Total Lindsey Oil Refinery Ltd together with details of any proposed mitigation measures and the LPA have agreed in writing that they are satisfied with the conclusions of the Report so to allow the respective element to be occupied. Any mitigation measures proposed in the report to be approved in writing by the Borough Council shall be implemented in accordance with the approved report."

The reasons for the condition were:-

“The Borough Council as Local Planning Authority is not satisfied that the risk posed by the adjacent Total Lindsey Oil Refinery is acceptable to allow the occupation of the proposed public house/restaurant and the proposed drive through restaurant. This condition will enable the public house/restaurant and the proposed restaurant/takeaway to occupied only if the relevant hazardous substances consents for both the Total Lindsey Oil Refinery Ltd and Chevron Ltd have been revoked or if the Borough Council as Local Planning Authority has confirmed in writing that it is satisfied that the so as to allow the development to be occupied whilst the adjacent Total Lindsey Oil Refinery is still in operation and the relevant hazardous substance consent for Chevron Ltd has been revoked.”

This discharge of condition application seeks to discharge part b) of the above condition by demonstrating that the risks to customers and staff of the public house/restaurant is not so great as to prohibit the development proceeding whilst Total continue to occupy the adjacent site. The application is accompanied by a technical report by Arup (consultant surveyors/engineers).The issues are summarised as follows:-

The Total site stores and distributes fuel in 9 tanks which forms a fire and explosion risk.
The risk assessment focusses on petrol as this has a lower flash point than the kerosene and diesel also kept on the site.
The site has Hazardous Substances Consent to store 6.7 million litres of petrol in 4 tanks.
The risks arising from a fire or explosion at the Total site are blast injuries, fragment injuries, and thermal radiation injuries.
Risk assessment focusses on the ALARP standard - As Low As Reasonably Practicable.
A risk assessment depends on the type of construction, the state of repair and the health of the nearby population (including how easily they can escape)
A risk of more than 10 in a million per year would mean the advice is against allowing a development, whilst a risk of 1 in a million per year.
The Total site is manned 24/7 and receives fuel along a pipeline from rail wagons 2km away. Bulk delivery occurs 3 times per week. Road tankers distribute the fuel from the Total site.
Tank filling is monitored and has alarms. The filling automatically shuts down after the second alarm.
The fuel tanks are single skin of welded steel with either fixed of floating roofs.
If the tanks were overfilled the fuel would spill out of vents in the roof and run down/cascade down the sides of the tanks.
During periodic emptying and cleaning there is a risk of vapour ignition, leading to a fire.
A catastrophic failure of the tank would result in spillage and fire.
The fuel tanks are surrounded by a bund 1m high which has a capacity of 110% of the largest tank.
The bund and the site have vapour detectors.
The bund wall has nozzles dispensing foam to contain vapour and inhibit fire.

The Buncefield fuel depot fire was caused by petrol over spilling a tank, resulting in a vapour field which ignited.

Consultations

Health and Safety Executive

We expressed our serious concern that the Council were prepared to rely on a future risk assessment to be provided by the applicant, rather than HSE's advice in this case.

We are unable to provide any comments on the methodology or results of such a risk assessment study.

We note that the provision of a bund is being considered and that this may help to mitigate the risk. However, it does not change HSE's advice in this case and it is a matter for the Council to decide on the adequacy of any measures proposed to discharge condition 4.

Total Lindsey Oil Refinery Ltd

The reason for the imposition of condition 4 was to ensure that there was a full assessment of the risks associated with siting the proposed development within the inner zone. We do not believe the assessment that, in risk terms, the whole of development site lies within the middle zone.

We have concerns over the adequacy of the ARUP report and we have set out in summary below the basis of these. In addition we are also concerned over the proposed mitigation measures and the changes that seem to have been suggested to the form of development. In our opinion the report, particularly when it is considered with the proposed mitigation measures and changes to the development falls short of providing the support that is required in order to discharge condition 4.

Risk Assessment

We would again like to emphasise that it is not in our interest to over-state the risks involved for the proposed development, and as such our only concern is to ensure that any neighbours, old or new, are protected so far as is reasonably practicable.

As set out in section 6 of the Arup Report, the Buncefield incident in 2005 demonstrated that contrary to most experts' understanding at the time, significant explosion overpressures can be generated from the ignition of a vapour cloud caused by overfilling petroleum storage tanks like those at our Nottingham Terminal. As a direct result of this new understanding, the HSE introduced the DPZ specifically to restrict new developments close to these types of terminal so that, as far as possible, members of the public were not put at risk should another incident occur.

As you are aware we, objected to the application for planning permission (Ref 2013/0497) and the HSE also advised the Council against granting permission on safety grounds due to the proximity of the proposed development to our Nottingham Terminal. At the time planning permission was granted, planning permission records that the Council were not satisfied that the risk posed by our Nottingham Terminal is acceptable to allow the occupation of the proposed public house/restaurant and the proposed drive through restaurant. We see nothing in the Arup Report which should change your view that occupation of the proposed development would expose members of the public to an unacceptable and avoidable risk.

If the numbers of people using the proposed development estimated by the Arup Report (section, 4.1 and 4.2) are accurate, the proposed development introduces 140 people at peak times at the Public House, and 40 people at its peak within the Drive Through into the hazardous zones surrounding our Nottingham Terminal. As noted in the same sections of the Arup Report, these have both attracted an “Advise Against” from PADHI+ due to the risks involved.

We query the accuracy of these maximum occupancies; the Floor & Roof Plan Ref 0055/12/0202 Rev A indicates internal seating for 149 patrons, plus standing room, external areas and a play room. The version of the site plan submitted with the original application suggests that the scheme was in fact designed to accommodate 180 customers plus staff. In addition we query why the permitted development includes what appears to be shown as a 3 double bedroom flat above the public house, if, as Arup have assumed, a live in manager and his/her partner are the only people likely to be in residence. This suggests to us that the developers, if not Arup have assumed that family accommodation will be required at the public house.

As pointed out in section 5.7 of the Arup Report, it is correct that the terminal has suitable on-site and off-site emergency plans. However, these plans have been designed to deal with the likely off-site impacts taking in to account the existing use of land neighbouring the terminal, not the land use or the introduction of up to 180 members of staff and public who may be brought in to close proximity of a major hazard by the proposed development. The proposed development will substantially alter the character and extent of the emergency response required by both our Nottingham Terminal and the emergency services in the event of a major incident, this has not been addressed in this report.

With reference to section 7.2, the Arup report states that pipeline risks do not apply. However, the pipelines are in close proximity to the proposed development, and we consider that a release from the pipelines could impact anyone in and around the Drive-Through Restaurant and/or the Public House.

Regarding sections 7.2.2 and 7.2.3, while it is correct to state that the risk of igniting diesel or kerosene is much lower than for Motor Spirit, it is incorrect to state that it “will not ignite, even with a naked flame”. For example if hot works, such as welding, were being undertaken then this could result in ignition. As such, releases of diesel and kerosene should have been considered.

We note the overall Individual Risk figures calculated in section 7.6 but would like to highlight some of our concerns about the assumptions used in the report to justify these figures. These assumptions have a material impact on the figures quoted within section 7.6 and as such, we do not believe that the Council should not be rely upon them to draw the conclusion which the Arup Report invites to the effect that the proposed the development should be treated as if it were in the Middle Zone, even without considering any of the additional risk mitigation measures which they have considered in sections 8 and 10.

There is a problem with the ignition probabilities stated within section 7.3, as some of the figures quoted refer to ignition probabilities for off-shore releases. A key factor in

determining the probability that a release will be ignited is whether the release is contained within an area that controls ignition sources, obviously the controls in an off-shore environment are more extensive than could be the case on-shore, consequently, the risks of ignition off-shore are significantly lower. Although our Nottingham Terminal controls ignition sources on site, for both tank overfills and catastrophic tank failures it is important to note that product/vapour could leave site and migrate to areas where there would be no control of ignition sources. The product/vapour could be exposed to things off site such as spark ignition engines, people smoking, and non-intrinsically safe equipment.

This greatly increases the probability of a release being ignited and this should have been properly reflected in the figures used. For risk assessment purposes, it should have been assumed that the probability of ignition of a large off-site product/vapour release in to an uncontrolled environment such as that presented by the proposed development would be much greater than that used within the Arup report, and would in fact tend towards 1.0 (see PSLG final report Appendix 2 paragraph 133 page 106). In effect, it should be assumed for the purposes of the calculations that in the circumstances being considered, ignition of product/vapour escaping from the Nottingham Terminal on to the proposed development is a virtual certainty. 3

With regard to Appendix A, the overall approach does not address the full range of possible initiating events that could lead to a tank overfill situation. The PSLG Final Report Appendix 2 Figure 22 states that a risk assessment should “Systematically identify all initiating events and related enabling events/conditions that could (if all other measures fail) lead to the harm being considered and document the scenarios for each”. The Arup report does not do this. For example it does not address the failure of the tank gauging system as an initiating event (as occurred at Buncefield), nor the incorrect hosing up of railcars.

In addition there are some errors with the assumptions made, for example the failure rate for the Bund Vapour Sensors of 1/50 is not appropriate as the sensors installed are not SIL rated, it is the independent trip system that is SIL rated. As we have previously pointed out, whilst both systems are reliable it is only the trip system that is SIL rated highly reliable.

In addition The Event Tree shows two separate layers of protection for the bund sensor alarm and the operator emergency stop action. However, as stated in PSLG Final Report Appendix 2 paragraph 97 “... the alarm itself is only part of the protection layer. The full protection layer needs to include the alarm, the operator, the machine-operator interface, any communications systems”. Therefore the alarm and operator action need to be combined into a single layer of protection.

The PSLG Final Report also states in paragraph 96 that where the alarm is delivered through the BPCS, the risk reduction factor of the alarm layer should be limited to at best 10 in accordance with clause 9.4.2 of BS EN 61511-1. Therefore, in our view, the combined bund sensor alarm and operator emergency stop action should have a combined probability of failure of at best 0.1.

With reference to Appendix B, in order for credit to be taken for a control measure for catastrophic tank failure it must either prevent the tank from catastrophically failing,

or mitigate the consequences such that the occupants of the proposed public house and drive through restaurant are not exposed to an ignited pool fire. However several of the controls which have been taken credit for in the Event Tree would not do this.

As stated in section 5.2 of the Arup report, the nature of a catastrophic tank failure is that it is sudden. As such detection of the event is of limited benefit. As stated above the full protection layer needs to consider both detection and the actions that will prevent or mitigate the event. In relation to a catastrophic tank failure, detection does not help prevent the catastrophic failure (it has already happened), and due to the sudden nature of the event there is very little, if any, time to put into effect an off-site evacuation plan. As such detection provides very little reduction in risk.
With regard to bund containment success, HSE guidance and good practice dictate that it is normal to assume that for 100% of catastrophic tank failures some of the contents of the tank will overtop the bund due to the wave effect. Despite substantial amounts of research having been undertaken and published by the HSE and others on this topic to support this conclusion, the Arup Report only assumes that this occurs with a probability of 0.125. This is, at best, a very optimistic assumption to make.

The Arup report also assumes that in the event that the bund has not contained the product from the catastrophic tank failure, foam can be applied to keep vapours on site. However, the foam suppression system is only directed within the bund. Therefore, it cannot be used to apply foam to product that has overtopped the bund. As such no credit should be taken for this control measure with regard to the overtopped product following a catastrophic tank failure.

Within Appendix C there is an error with the Arup report with regard to inerting tanks, the tanks are not inerted before cleaning commences, in fact the very purpose of the cleaning the tank in the first place is to remove residual product. There also seems to be double counting within the Event Tree as it takes credit for both the “atmosphere properly inerted” and “atmosphere properly controlled”, giving a combined figure of 0.005 x 0.02 = 0.0001. Industry history of incidents involving flammable atmospheres when cleaning tanks would suggest that the likelihood is in fact much higher than this, and as such, we consider that the Arup Report has underestimated the risks.

It is correct to state (see Appendix C5) that the tank roofs are designed to fail preferentially. However, what this means in practice is that despite their weight, in the event of an internal explosion, the roofs can be ejected a considerable distance, possibly resulting in damage to adjacent equipment or neighbouring properties. This occurred in an empty tank during the Buncefield incident resulting in the tank roof splitting in to two sections weighing over 1.5 tonnes each, being ejected over a distance of approximately 50m onto a neighbouring property.

With regard to Appendix E, the overall approach does not address the full range of possible initiating events that could lead to a Road Tanker Overfill, for example it does not address the failure of the BPCS as an initiator, nor does it address driver errors such as failure to swap the hose to a new compartment. Incidents of these types have all occurred in recent years. In addition, some of the assumptions used are incorrect. For example the Terminal Automation System is not SIL rated and as such to use an assumption that it will only attract a failure rate of 1/100,000 is not

credible. While it is agreed that drivers should promptly operate the manual shutoff system, recent industry experience suggests that this is not as reliable a control as would be expected. As such the assumption used of 0.005 is felt to be overly optimistic.

The matters set out above are such as to cast significant doubt upon the risk assessment in the Arup Report and its conclusions that the proposed development should be treated as if it were in the "middle" Consultation Zone. As we stated in letters regarding the initial application for planning permission, the systems in place at our Nottingham Terminal facility meet the safety requirements applicable to our operations but that does not detract from the requirement to fully and properly consider the risks to the public created by their presence immediately adjacent to that site. We ask that planning permission is refused for these applications.

The “low and tolerable risk” assumed in the report is based upon a number of inaccuracies, such as duplicate tank level gauging which is not the case. The result is once again to understate the level of risk by a significant degree.

Additional Mitigation Measures

At section 10 of the Arup Report a number of recommendations have been made by Arup by way of additional mitigation measures. We are unable to comment upon the proposed mitigation measures in detail but it appears to us that these recommendations, if accepted by the Council, will require amendments to the development that was approved by the Council (reference 2013/0497). That permission lists in condition 5 the approved drawings and requires that the development is carried out in accordance with those drawings.

For instance the mitigation measures proposed show, what we interpret to be, two emergency fire exits situated in the western elevation of the proposed public house, suggesting an evacuation route to the car park, towards our Nottingham Terminal. One obvious point to make is that in the event of an emergency event at our Nottingham Terminal, these exits and the main entrance on the southern elevation may become unusable, it is not clear to us what the Arup Report is recommending in respect of those doors.

In addition this change and others suggested seem to us to be more than minor material amendments to the planning application and could, if that is the case, require either a further planning application or a variation to condition 5 to amend the drawings referred to in that condition. If the applicants are suggesting (although this in not clear) that the mitigation measures and changes to the form of development suggested are required in order to meet their risk assessment then they will need to show how these can be accommodated within the existing planning permission. Alternatively we assume that a further planning application or section 73 application to vary condition 5 will be made and determined before condition 4 is considered.

We have the following additional points on the proposals:

1. In the absence of any detailed drawings regarding the design of the Drive-Through restaurant, it is not possible for us to comment as to how any recommendations in

the Arup Report may relate to that building, we envisage that will be a matter for the Council to consider at a later stage. But further details are required if the Council are to be properly assess this aspect of the proposed development against any potential risk;

2. The proposal is to install metal window frames rather than the originally proposed wooden frames and toughened glass also requires full consideration by the Council. We are not qualified to offer a view; on any specific design parameters to be complied with save to question whether this change falls within the approved development proposals. We are also concerned that the report does not assess the effects on the windows to other elevations to this building which, whilst not facing the facility, could be subject to blast effects that would not be mitigated by using toughened glass and metal frames solely of the western facade. We believe that should also be considered;

3. A number of the approved plans indicate external seating arrangements in the south west corner of the public house garden, clearly that is an external area where customers are likely to congregate, it is unclear what the Arup Report Recommends in respect of those areas;

4. No proposals to apply for planning permission or amend the approved details have been made in respect of the suggested further mitigation measures set out in Section 8 of the Arup Report. It is not clear to us what the effect of the suggested guttering around the storage tanks or the earth bund are said to be. Having reviewed Appendix H and Appendix I we can see no mention of the likely risk reductions associated with either proposal. In addition these proposed works are not on land either owned or in the control of the applicants. It would not be appropriate to further condition any discharge of condition 4, if these proposals do form part of the risk assessment then they must be discounted. If that is the case then we would expect to see consideration of any resulting changes to the risk assessment in either a revised report before the Council considers the application any further;

5. When considering Appendix G, the comments made above in relation to tank overspill still apply. In addition in order to comply with BSEN61511, to take full credit for a second SIL2 rated overfill prevention system, a fully independent loop would need to be installed including not just the gauge (sensor), but also the logic solver, and final element. This does not seem to have been included within the mitigation measures that are propose in the Arup report.

Summary

In summary, it is our position that a duty of care is owed to the people who will work and visit these planned developments, and a key aspect to this duty is to ensure the risks to these people are as low as is reasonably practicable. The Arup Report makes a number of inaccurate assumptions some of which contradict information already provided by our Nottingham Terminal to the Council and Arup such as for ignition probabilities where Arup apparently continue to ignore HSE guidance. In addition, those mitigation measures that are proposed (although it is not clear from the report if they form a part of the assessment) could require either a further planning application to be made or a section 73 application to vary condition 5 to be

made or works on land that the applicants have no control over.
As it is, it remains our view that this report should not be relied upon as a demonstration that the risks to the proposed development are acceptable.

Totals specific comments as detailed above in were forwarded to the agents and Arup have submitted further information, in a letter dated 31st March 2014. This addresses specific points raised by Total and the Planning Officer. The specific issues are summarised below

1. The societal risk calculations have been tested at 180 maximum occupancy in the public house (up from 140) and the other occupancies increased pro rata. This 180 figure allows for full occupancy plus some standing/waiting. Please see point 2 below for the combined result.

2. By increasing the maximum occupancy to 180, the occupancy of the small residential apartment would automatically be increased to 4. The combined result of the changes to points would be to alter the increase is societal risk from 6.0% to 7 .l%.

3. Section 7.2.2 of our report could be clarified to read as follows

   'The quantities of diesel stored are not limited by the Hazardous Substances Consent. Liquid diesel at ambient temperatures and pressures is very difficult to ignite, even with prolonged contact with a naked flame. Diesel is also excluded from Land Use Planning around Large Scale Petrol Storage Sites [4] and so this scenario would be judged not to have any material effect on the conclusions and diesel is excluded from the analysis.'
4. Section 7 .2.3 of our report could be clarified to read as follows

   'The quantities of kerosene stored are not limited by the Hazardous Substances Consent. Kerosene has a significantly higher flash point than motor spirit. Kerosene is also excluded from Land Use Planning around Large Scale Petrol Storage Sites [4] and so this scenario would be judged not to have any material effect on the conclusions and kerosene is excluded from the analysis.'
5. We have tested an increase in the probability of an off-site ignition of a petrol vapour cloud from 0.76 to 0.9 to study the effect of Total's viewpoint. Please see the combined result at point 8

6. The Arup report addresses the failure of tank gauges directly and in detail. The incorrect hosing up of rail cars might cause the wrong product going into a storage tank but would not alter the likelihood of overfilling. Incorrect hosing up is much more of a cross-contamination issue and a commercial risk for Total.

7. A5 could be clarified as follows:-

   'spills into the bund result are detected by the bund vapour sensors. Although these passive devices are regularly tested, a conservative probability of failure on demand or 1/50 is adopted.'
8. We have tested an increase in the probability of an employee failing to activate an emergency stop from 0.02 to 0.1 as suggested by Total. The

combined effect of testing Total's assertions in points 5 and 8 are to increase the individual risk of Scenario A (Overspill) from 1.65E-06 to 5.84E-06, i.e. by a factor of 3.5. However, this change would not alter the conclusions of our report.

9. Our calculations estimate the individual risk of staff and patrons in the public house and the drive thru restaurant after catastrophic tank collapse The precautions to prevent catastrophic collapse are, inter alia, good design, construction quality control, compatible product storage, effective maintenance, regular inspection and prescribed non-destructive testing. The catastrophic failure rates used in our assessment are for these types of storage tanks are those recommended by the Health and Safety Executive and take all the above risks into account.

10. The probability of wave action overtopping the bund depends on many issues, for example, the capacity of the failed tank in relation to the bund capacity , the amount of product in the tank at the time of failure, the damping effect of the pipework and other tanks in the bund. The majority of the motor spirit tanks are much smaller than the bund capacity and it is judged that, combined with the fact they will not normally be full, leads to the judgement that in only I in 8 (0.125) catastrophic failures will wave overtopping take place.

    However, the probability of significant wave action has been tested at 0.5 (rather than the 0.125) and the annual frequency has increase by the expected factor of 4. However, as this is not a dominant scenario, it would have no effect on our conclusions.

11. The use of the word 'inerting' has been corrected to 'purging'. The dangers of both flammable and toxic atmosphere when a petrol storage tank is emptied for cleaning an inspection are well recognised and especial care is to keep the atmosphere below flammable limits. However, the probability of failing to purge has been increased from 0.005 to 0.25 by way of a sensitivity test. The individual risk increases by the expected factor of 50 but, as this scenario was, and still is, of limited contribution to the combined risk, our conclusions are unaffected. Even a 50 times increase in the frequency of this scenario has no material effect on our conclusions.

12. If the probability of the driver failing to activate the emergency stop button has been tested at a very conservative 0.02 (I in 50), the risk only increases marginally. The risk calculation is dominated by the scenario where the ullage is incorrectly stated on tanker arrival and so the risk only increases by a few per cent. The Arup calculations agree with the historical failure rate reported by Total and our conclusions stand.

13. The result of the sensitivity changes discussed above are shown in the results tables after and previous below for the 'Status Quo' i.e. before any additional mitigation measures. Although the individual risks would increase by a factor of 3, they are still applicable to the middle zone and so the conclusions of the Arup report of January 14 report are unaffected.

Planning Considerations

The site has planning permission already and this application seeks to discharge only condition 4 which relates to the risk posed to customers and staff by the nearby fuel storage depot. Accordingly only the following policies are relevant to the determination of this proposal:

It is my opinion that the main planning considerations in relation to the determination of this application are:-

> Whether the risk posed by the presence of the adjacent TLOR terminal to the staff and customers of the proposed public house/restaurant and the restaurant/takeaway unit would be unacceptably high (also known as societal risk)
>
> Whether the measures proposed mitigate societal risk to an acceptable level.

Risk Posed by the Total Lindsey Oil Refinery

The site is located within the Development Proximity Zone (DPZ) of Total Lindsey Oil Refinery Terminal. The HSE originally advised against granting planning permission for the development because of its proximity to the oil terminal and the potential risk posed should an explosion occur at the site. However the final decision rested with this Council as the local planning authority, and it resolved to grant permission.

After the resolution to grant planning permission was made by the Planning Committee, the HSE still had the power to ask that the application be “called in” for decision by the Secretary of State. The HSE chose not to pursue that option, and accordingly consent was granted. At the time the original application was under consideration the HSE indicated that they would consider reviewing its advice if a suitably worded condition were to be included in any permission which would prevent the occupation of the site whilst the Total site remained. Or it was proven that the societal risk arising from that site was at an acceptably low level.

Accordingly condition 4 was imposed, as detailed above.

The applicants have submitted an assessment of the risk posed by the Total site and Total have reviewed the assessment and have raised a number of issues regarding the assumptions made in the report which affect the risk levels that the applicants have calculated.

The HSE have not been willing to comment on the methodology, calculations, assessments and conclusions of the Arup report as they are “not resourced to provide consultancy services.”

I am mindful of the requirement of paragraph 186 and 187 that Local Planning Authorities should work proactively with applicants and should approach decision making in a positive way and look for solutions rather than problems.

I note that the report submitted advises that the proposal due to the assessment of risk carried out that the proposal is comparable with development being in the HSE middle zone, developments in these locations would attract a ‘Don’t Advise Against’

response from the HSE.

Consideration needs to be given to the societal risk posed by the development before a recommendation on whether the risk posed is acceptable.

Whether the measures proposed mitigate societal risk to an acceptable level.

The information submitted as part of this discharge of condition application assesses the following mitigation measures:

1. Installation of duplicate gauges in Total's petrol tanks.
2. Installation of guttering to the edge of the petrol tanks.
3. Construction of an additional bund, outside the Total site to the east of the prosed development.
4. Alterations to the facades of the buildings facing towards the Total site.
5. Revision to the layout of the new development.

The installation of Duplicate gauges would reduce the risk of explosion to 1 in 500. However this would involve works to land outside the applicants control and duplicate existing gauges.

The addition of guttering to the top of the petrol tanks would prevent overspill fuel from cascading down the tank which can cause a dangerous vapour cloud. (one of the major causes of the Buncefield fire). However this would involve works to land outside the applicant's control.

The addition of a new bund (in addition to the bund at Total's site) would prevent pooled overspilled fuel getting closer to the new development. However the Arup report considers that this would have limited benefit due to the presence of the existing Total bund.

The applicants have advised that they intend to install blast proof glass in windows and glazed doors facing the Total site, which, in the event of an explosion, prevent shards of glass injuring customers/staff at the development site. In addition it is planned to change window frames facing Total's site to metal from timber.

The original approved plans for the public house show a building with fire doors and windows facing the Total site with the main entrance and outdoor seating to the south elevation. Officers have negotiated a revision to the layout of the public house (which are subject to planning application 2014/0587) such that it is proposed to re-orientate it so that its entrance and customer outdoor spaces face to the south east. The design of the building and access are unchanged. Such a revision has a significant impact as it the building would physically protect staff and customers inside the building, and those using the outdoor space.

As indicated above the revised siting of the public house is the subject of an accompanying planning application 2014/0587, which is included for determination on this agenda

The approved plans for the drive through restaurant/takeaway are in outline only so

such considerations can be taken into account when a subsequent detailed application is made.

Conclusion

The societal risk to users of the approved new development has been demonstrated to be at an acceptable low level, providing the siting of the public house building is revised in accordance with the details proposed under planning application 2014/0587. None of the other suggested mitigation measures are required as their benefit would be extremely limited.

Recommendation:

Approve the report submitted to discharge condition 4 of 2013/0497 subject to the public house being re-sited in accordance with the plans approved under 2014/0587 .