

Appeal No. VA96/2/015

**AN BINSE LUACHÁLA**  
**VALUATION TRIBUNAL**  
**AN tACHT LUACHÁLA, 1988**  
**VALUATION ACT, 1988**

**Premier Periclase Limited**

**APPELLANT**

**and**

**Commissioner of Valuation**

**RESPONDENT**

RE: Land, periclase works (pt. of) and grounds at Map Ref: 24Bc, Boyne Road, Townland:  
Newtownstalaban, ED: St. Peter's 1, RD: Louth, Co. Louth  
Rateability of tanks

**B E F O R E**

**Liam McKechnie - Senior Counsel**

**Chairman**

**Fred Devlin - FRICS.ACI Arb.**

**Deputy Chairman**

**Con Guiney - Barrister at Law**

**Deputy Chairman**

**JUDGMENT OF THE VALUATION TRIBUNAL**  
**ISSUED ON THE 13TH DAY OF OCTOBER, 1997**

1. By Notice of Appeal dated the 15th day of April 1996 the Appellant Company Premier Periclase Limited, appealed against the determination of the Commissioner of Valuation in placing a rateable valuation of £1,150 on the above described hereditament.

The grounds of appeal as set out in the said Notice are:-

- "1. The valuation is excessive and inequitable.
2. The valuation is bad in law."

2. This appeal proceeded by way of an oral hearing at which both the Appellant Company and the Respondent were represented by Solicitor and Counsel and also by Valuation Experts. In accordance with normal practice written Précis of Evidence had, prior to the hearing, been exchanged between the parties and submitted to us. Having taken the Oath both Valuers adopted as their evidence in chief their respective précis. Evidence was also given on behalf of the Appellant, by its Works Director, Mr. Gallacher B.Sc., C. Eng., M.I.M.M., and this was supplemented by a variety of documentation including, a Diametric Plan of the production process. The relevance of this and the facts so found or agreed are set forth later in this judgment.

3. Premier Periclase Limited, which is a wholly owned subsidiary of CRH Plc is Ireland's only producer of and is one of the world's largest producers of Sintermagnesia. This product is used in the manufacture of refractory linings especially in the steel industry. It is particularly suitable for this as, when hard burned, it is chemically unreactive and secondly it has a melting point of 2,800°C. Since its incorporation in 1980 this Company, which manufactures for export only, has carried on this business from a large industrial complex, part of which is located in the administrative area of Drogheda UDC and part within the adjoining area of Louth County Council. The complex itself can, in general terms and purely for descriptive purposes, be divided into two sections, namely, that section containing the main factory and buildings all of which are within the Urban Area with the rest, being the tank farm at the "Wet End", being within the County Area. The Valuation of the rateable hereditaments within the urban area is not at issue in this appeal. Within the County Area there is a Rateable Valuation of £1,150 placed on hereditaments which are described as "miscellaneous". Included within this description are five tanks.

These are:-

- (a) 1 Clarifier Tank - RV £150 - Tank No. 2,
- (b) 1 Reactor Tank - RV £45 - Tank No. 3,
- (c) 2 Thickener Tanks - RV £310 per tank - Tank Nos. 4 & 5,

(d) 1 Effluent Tank - RV £150 - Tank No. 6.

As the measure of valuation is not in dispute the sole issue before us is the rateability or otherwise of these tanks.

4. The valuation history is not in itself of any particular relevance. However, for completeness it can be recorded that the hereditaments in question were listed for revision on 16th March 1992, that the revised list issued in November 1994, that the Appellant Company appealed to the Commissioner on the 8th day of November 1994 with the results of the first appeal being published in March 1996. Being still dissatisfied with the rateable valuation attaching to these units the Appellant appealed to this Tribunal on the 15th day of April 1996.

5. The following is a brief and almost certainly, an oversimplified view of the manufacturing process. This should be read in conjunction with the schematic drawings, which together, constitute Appendix 1 to this judgment.

On the Company's quarry, limestone is extracted and crushed and is sent to the limekiln for burning. It is then hydrated (slaked) and in that condition goes to the Reactor Tank in the Wet End. In that tank the slaked lime is mixed with treated sea water. This water comes from the River Boyne and goes through a Clarifier for the purposes of removing impurities therein. It is then transferred to the Reactor Tank where it is mixed with the slaked lime. Immediately there is a chemical reaction in that when the lime dissolves it displaces the magnesium hydroxide which comes out as a precipitate. This is then collected, dewatered in the Primary Thickening Tanks before being sent to the multi-hearth furnaces. From these thickeners there is an overflow pipe which takes the spent water to the Effluent Tank.

In the said multi-hearth furnaces the last of the water is removed and the precipitate is calcined (burned) changing it into pellets/briquettes which are then fed to the shaft kilns. In the shaft kilns the pellets are heated to a high temperature resulting in a change to dense unreactive periclase. The finished product is then ready for storage to await outward shipping from the Company's private wharf in Drogheda.

6. Because of the legal issues raised in this case it is necessary to consider in some more detail the type, kind and the function and workings of each of these tanks.

Evidence in respect of these matters, some of which was quite detailed and quite technical was given to us by Mr. Gallacher, which evidence we accept in its entirety.

That evidence was adduced in accordance with a written report prepared by him for the purposes of this hearing. A recital herein of such evidence in its totality would make this judgment quite difficult to read and almost unmanageable to follow. The result would be more akin to an academic presentation rather than to an overall understandable decision which on both the facts and submissions we are obliged, by law, to make. Accordingly, we propose to highlight part only of this evidence but we have reproduced in Appendix 2 to this judgment, the relevant extracts from his said written report.

**(a) The Seawater Clarifier - Tank No. 2:- (Numbered as per Diagram 1 of Mr. Gallacher's written submission)**

This is a circular tank with 9" thick walls having an internal diameter of 56.4m and an external height of approximately 5.5m. It has a capacity of over 13,500 m<sup>3</sup>. There is an overhead catwalk and screens with rotating arms.

Its function is three fold, namely the neutralisation of acid, the reduction of colloidal and the removal of suspended sand, silt and clay which is within the seawater at the intake point. All of this is achieved by a two stage process:

Reaction in the centre well with recycled magnesia precipitate which results in the removal of some dissolved sand and passage through a floating bed of precipitate which is maintained in the clarifier. The incoming seawater passes up through this bed which acts as a filter trapping the sand and silt.

**(b) The Reactor - Tank No. 3:-**

Again this is a circular concrete tank with 9" thick walls about 5 ft in height. It has an internal diameter of 33 m and a capacity of over 5,040 m<sup>3</sup> or 1.1m gallons. It has an overhead catwalk and screen with rotating arms. Following the degassing, gassing and cleaning, the seawater flows by gravity to the centre well of this reactor. The lime slurry from the slaker is then added. In the reactor centre well there is a large turbine which rotates at +/- 4.0 rpm. This rotation draws up the seawater which then mixes with the lime slurry. Immediately magnesia is precipitated. If uncontrolled the reaction produces a very small, fine precipitate which would be extremely difficult to handle in the rest of the process. In order to prevent this therefore, already produced precipitate is recycled from the Primary Thickeners. It is added to the pipeline taking the fresh seawater into the Reactor and on reaching the centre well acts as the seed onto which the new precipitate is deposited. For this reason the recycled precipitate is known on the plant as "Seed". Each time

the seed is recycled the precipitate crystals get larger. With sufficient recycling a precipitate with good settling characteristics, suitable for use in the rest of the process, is produced. From the Reactor, as stated above, the precipitate and the used seawater overflow to these Primary Thickeners.

**(c) The Primary Thickeners - Tank Nos. 4 & 5:-**

These are two tanks connected in parallel with one another. Each is circular in shape with 9" thick walls with a height of about 4 m. The internal diameter is 99 m and the capacity of each is in excess of about 28,000 m<sup>3</sup>. Again there is an overhead catwalk and rotating arms provided. The purpose of these thickeners is to partly separate the precipitate for the spent seawater. By mixing very slowly the precipitate is allowed to settle at the bottom of the tanks with the spent seawater overflowing at the top. A chemical called "Flocculent" is added. This is necessary because some of the materials are so fine they would not without this chemical additive stick together.

**(d) The Effluent Clarifier - Tank No. 6:-**

Like most of the tanks above mentioned, this is again circular in nature, with 9" thick walls and a height of 5.5 m. Its internal diameter is 56.4 m and it has an operating volume of 15,487 m<sup>3</sup>. This tank is identical in design and operation to the Clarifiers the spent seawater overflowing the Primary Thickener Tanks goes to this clarifier where fresh water is used to neutralise some of its excess lime. The floating bed of precipitate is used as the final filter before returning the spent seawater back to the Irish Sea.

7. On the above facts two issues of law arise and thereon submissions on behalf of the Appellant Company and Respondent were made. The first submission was to the effect that these tanks are and constitute "machinery" (being non-motive power machinery) as so defined in the Substituted *Section 7 of the 1860 Act* and accordingly, should be declared exempt from rateability. In this regard the original section is precisely the same as that inserted by *Section 7 of the 1986 Act*. The second submission was to the effect that even if Section 7 was not available as a ground for exemption, nevertheless the tanks, being plant, were also entitled to a non-rateable status on the basis that within *Ref. No. 1 to the Schedule of the 1860 Act* each tank was designed or used primarily to induce a process of change in the substance contained or transmitted therein. To these issues we now turn.
8. On the 14th day of March 1997 this Tribunal gave judgment in a case entitled **Carberry Milk Products Limited v. Commissioner of Valuation (VA95/4/026)**. Therein issues of law almost identical to these relevant to this case were considered. From that judgment the following general propositions can be stated:-
- (a) If prior to the Valuation Act 1986 a receptacle, to use a neutral phrase, was under and within *Section 7 of the 1860 Act* properly described as "machinery" then that receptacle was entitled to exemption from rating.
  - (b) If post 1986 the same receptacle could however, also be described as "plant" within *Ref. No. 1 to the Schedule of the 1860 Act* as inserted by *Section 8 of the Act of 1986*, then its rateability has also to be considered in the context of that reference number.

- (c) Any receptacle, used simply for storage purposes or for a multitude of purposes, but with storage being the pre-dominant one cannot qualify "as machinery" and therefore cannot get exemption under Section 7.
- (d) Receptacles used simply or predominantly for storage purposes remain so even if contained within, are facilities which alter the viscosity of the contents of such receptacles.
- (e) Receptacles with facilities for agitation only may or may not, but in general will not qualify as machinery.
- (f) In determining whether a receptacle "predominantly is one for storage purposes" one general test is to examine the activity carried on therein. If such activity is merely for the purposes of retaining or maintaining the contents of the receptacle (or even perhaps for mixing or blending) in a particular condition whilst awaiting the core manufacturing process, then it is not machinery. If on the other hand the activity within, is in itself a proximate part of the manufacturing process, then exemption should follow.
- (g) When considering *Ref. No. 1 to the Schedule of the 1860 Act*, a crucial question is, whether such receptacle is designed or used primarily to induce a process of change with the words "to induce" meaning to bring about or cause a change in the process.
- (h) When dealing with the definition of "machinery" for the purposes of Section 7 the components should not merely be regarded separately or piece meal, but as integral parts of the process in which they are used (See *p151 of the judgment of O'Higgins CJ in Beamish v. Crawford [1980] ILRM 149*).
- (i) This "part of the integral process" approach, clearly applies to the different components of a separate or distinct receptacle, apparatus or unit e.g. one of several grain bins or milk installations. But in addition it also applies where it can be truly said that collectively such bins or installations or the like are or form an inherent part of a continuous and direct manufacturing process (See *p95 of Denis Coakley & Co. v. Commissioner of Valuation [1996] 2ILRM 90*).
- (j) This approach, as last mentioned does not apply when the point at issue is

whether or not *Ref no.1 to the Schedule of the 1860 Act* applies (See the *Supreme Court decision in CaribMolasses Co. Ltd. v. Commissioner of Valuation, unreported 25/5/93*).

9. In applying the law to the facts of this case, as so found or agreed we propose firstly to consider the provisions of *Ref. No. 1 to the Schedule of the 1860 Act*. It will be recalled that under this reference if the tanks in question are designed or used primarily for storage or containment (whether or not the purpose of such containment is to allow a natural or chemical process to take place) then they are rateable, but if the same are designed or used primarily to induce a process of change then they are not.

10. In approaching this issue, as we do, by taking each tank individually, we have arrived at the following conclusion:-

(a) **The Seawater Reactor - Tank No. 2:-**

As is stated above, when the seawater reaches its intake point from the River Boyne it contains sand, silt, clay and other impurities. This material has to be removed. In addition to this function this tank also has a neutralising role in the acidity of its content as well as reducing the dissolved silica in the spent water. These functions are all carried out in an active way within the tank.

There is no question of the seawater simply being stored in this tank. It is there so that a change in its composition can take place. Whilst undoubtedly it is true to say that what emerges therefrom and what goes to the Reactor Tank remains water, nevertheless it is by an artificial process carried on therein, a liquid now with impurities removed. The elimination of such sand, silt and clay is an integral part of this process and there can be no question of an activity taking place therein being used or designed solely to maintain the water in the state and condition in which it was before it entered the tank.

Accordingly, we are satisfied that it is used and most certainly primarily used to induce a process of change.

**(b) The Reactor Tank - Tank No. 3:-**

There can be no doubt but that an immediate chemical reaction takes place within this tank once the lime slurry meets and mixes with the treated seawater. Indeed, the core compound which is the foundation of the entire manufacturing process and of the ultimate consumer product is established here. With a large turbine rotating therein and a reactor centre well we are quite satisfied that this must be exempt, under *Ref. No. 1 to the Schedule of the 1860 Act*.

**(c) The Primary/Settling Tanks - Tank Nos. 4 & 5:-**

Having gone through the Reactor the precipitate is then collected and sent to these two primary tanks. The function performed therein is to separate this precipitate from the spent water. This takes place not only in a natural way but also in a chemical way. During the course of the hearing it was suggested that there is no necessity for the injection of "Flocculent" intake but that instead the same result could be achieved by having bigger tanks. This was rejected by Mr. Gallacher who stated, and we accept, that some materials are so fine, that this "sticking process" never takes place without the Flocculent. Whilst it is correct to say that chemically the product is the same before it enters the tanks as it is when it leaves the tanks nevertheless what goes in as a single solution comes out as a different solution. The effect therein is to separate the solid from the liquid. Again, we have had evidence to the effect that this is an integral part of the process which could not, even if storage could be achieved elsewhere, be dispensed with. Accordingly, we are satisfied that these tanks should equally be declared exempt.

**(e) The Effluent Clarifier - Tank No. 6:-**

This tank, which is the final step in the integrated system, is identical in size, construction, design and operation as the seawater clarifier. It receives the spent seawater overflows from the primary thickener. Its function is not only to reduce the alkalinity of the overflow from the pH of 12 to a pH of less than 11, but also to achieve a reduction of suspended solids. This is achieved by continuous circulation of magnesium hydroxide

within the recirculated drum and reaction well both located therein. Further fresh water is added. The reaction reduces the alkalinity. A floating bed of precipitate is used as a final filter before this spent seawater is returned to the sea. As we have already held that the seawater clarifier should be exempt we are also of the view that this tank likewise should be exempt. There is no difference in principle between both, though perhaps the process of change and the methods used to achieve that change, are somewhat less in this tank than they are in the Seawater Clarifier. That however would not in our opinion be a sufficient justification to treat this tank differently to the Seawater Clarifier.

- 11.** Accordingly, we are of the opinion that all of these tanks are exempt under *Ref. No. 1 of the Schedule to the 1860 Act* as inserted by *Section 8 of the Valuation Act 1986*. In these circumstances it is not necessary to consider the issue which arises under Section 7.