SR&ED Tax Court - case analyses

Author: David Sabina, M.B.A., C.A.
Director, MEUK Corporation
RDBASE.NET SR&ED Consortium Development Partner

I Introduction

In this article, we will use tax court analysis to illustrate some of the most common "interpretation problems" concerning SR&ED tax incentives.

I.1 What is the SR&ED program?

The SR&ED program is an incentive program designed to encourage R&D in Canada. The Canada Revenue Agency (CRA) administers the program.

Each year, the CRA receives claims from over 20,000 companies participating in the program and provides over $4 billion in tax credits annually delivered by more than 500 CRA employees across Canada. 70% of claims are from small and medium businesses. Most provincial and territorial governments provide R&D incentives, either separately or as part of the federal program.

Qualifying companies get money back in the form of a refund, a reduction of taxes payable, or both.
If a company is developing or improving any products, processes, or materials, this work may qualify for substantial refunds and/or tax credits under the federal government's Scientific Research and Experimental Development (SR&ED) program.

I.2 Why are there so many interpretation problems with claims?

The SR&ED program does this uninteresting tax incentive and it is one of the very few programs that require a claim into provide reports of both a scientific and a financial nature. As a result, in the author's experience, most Chartered Accountants feel inadequately trained to service their clients in this area.

To further promote this problem, The Canadian Institute of Chartered Accountants has identified this work is beyond the "core curriculum" of the C.A. designation! As a result, it is left to the discretion of each province to decide whether there is any education on the issue whatsoever.

The net result is that many Chartered Accountants have graduated without knowledge of the even the existence of this program, never mind as mechanics and workings!

I.3 Structure of this chapter

Given that we are dealing with a cross-disciplinary team (i.e. scientist and accountants), an obvious method of classification of past SR&ED tax credit cases would be those:

- dealing with the "technological eligibility" of the work in question versus
- the "financial eligibility" of the costs in question.

II Overview of the SR&ED tax credit rules and rates

II.1 Legislative definitions of SR&ED – inclusions & exclusions

SR&ED is defined for income tax purposes[1], as follows:

> "**scientific research and experimental development** means **systematic investigation** or search that is carried out **in a field of science or technology by** means of **experiment or analysis and** that is
>
> (a) **basic research**, …..,
>
> (b) **applied research**, .., **or**
>
> (c) **experimental development**, namely, work undertaken for the **purpose of achieving technological advancement for the purpose of creating new, or improving existing**, **materials, devices, products or processes, including incremental improvements thereto**, and, in applying this definition to a taxpayer,

includes

> (d) work undertaken by or on behalf of the taxpayer with respect to **engineering, design**, operations research, mathematical analysis, **computer programming, data collection**, **testing** or psychological research, where the **work is commensurate with the needs, and directly in support, of work described in paragraph (a), (b) or (c)** that is undertaken in Canada by or on behalf of the taxpayer, **but**

does not include work with respect to

> (e) **market research** or **sales promotion**,
>
> (f) **quality control or routine testing** of materials, devices, products or processes,
>
> (g) research in the **social sciences or the humanities**,
>
> (h) prospecting, exploring or drilling for, or producing, minerals, petroleum or natural gas,
>
> (i) the **commercial production** of a new or improved material, device or product or the commercial use of a new or improved process,
>
> (j) **style changes**, or
>
> (k) **routine** data collection."[2]

[1] *in subsection 248(1) of the Act*
[2] *end of ITA subsection 248(1) definition of SR&ED*

II.2 CRA criteria for Project technical eligibility

To administer this legislative definition of SR&ED the CRA has developed additional directives and guidelines.

II.2.1 Definition of a "project"

Excerpts from CRA form T4088[3]:

> "To establish whether or not the work you claim is eligible, we have to examine eligibility **at the project level**. You must present your claim showing your work organized as SR&ED projects."
>
> "**An SR&ED project consists of a set of interrelated activities** that meet the **three criteria** of SR&ED defined in the current version of Information Circular 86-4, *Scientific Research and Experimental Development*. This means that the set of activities must be necessary for:
>
> 1. the attempt to achieve specific scientific or **technological advancement** and
> 2. overcome scientific or **technological uncertainty,** and
> 3. must be pursued through a **systematic investigation** by means of experiment or analysis performed **by qualified individuals**."[4]

II.2.2 Quantified technological objectives and timeframes required

The CRA requires that the scientific or **technological objectives** you state:

- "be quantifiable or verifiable,
- contemplate a reasonable timeframe (generally <= 3years)" &,[5]
- "be clearly stated at an early stage in the project's evolution"[6].

[3] *This is the CRA's guide to the T661 form*
[4] *Excerpts from CRA form T4088[4]- the Guide to completing an SR&ED claim*
[5] *CRA form T4088, part 2, paragraph A – Guide to the T661 form.*
[6] *Information Circular 86-4R3, paragraph 2.10.3*

II.3 CRA guidelines on the three SR&ED "eligibility criteria"

"Technological advancement" requires three components

The model above represents the three components of an eligible SR&ED project. The CRA clarifies that:

> "Essentially, the **presence of a technological uncertainty puts the project into the realm of experimental development** when solutions cannot be based on standard practice alone."[7]
>
> "Achieving a **technological advance** would require removing the element of **technological uncertainty** through a process **of systematic investigation**… For an experimental development activity to be eligible the **technological advance** achieved **has only to be slight."**[8]
>
> "In the context of experimental development, scientific or **technological advancement is the knowledge acquired in carrying out the SR&ED project**, which advances the understanding of the underlying scientific relations or technology. ..For an experimental development activity to be eligible … it must seek to advance the taxpayer's technological knowledge base. The **technological advance** achieved **has only to be slight."**[9]

II.3.1 Phase 1: The square = define "standard practice"

"Commonly available sources of knowledge or experience are those that can reasonably be assumed to be **readily available to those with basic training or experience in the field of concern.** These resources enable them to be sufficiently **qualified to participate** in SR&ED. They also include knowledge that is available in the **business context** of the firm….An enterprise may not have **practical access** to information proprietary to a competitor, or known in specialist or academic circles." [10]

"The **search for a meaningful advance** in the body of scientific or technological knowledge should be present as a guiding element in every eligible project. This requirement is **satisfied whether or not the activity is successful**. In other words, determining that **a hypothesis is incorrect also represents a scientific or technological advance**."[11]

II.3.2 Phase 2: The triangle = technological uncertainty

The CRA recognizes two specific sources of eligible "technical uncertainty" for SR&ED:

"Specifically, **scientific or technological uncertainty** may occur in either of two ways:

> **[scientific uncertainty]** it may be uncertain whether the goals can be achieved at all ; **or**
>
> **[system uncertainty]** the taxpayer may be fairly confident that the goals can be achieved, but may be **uncertain which of several alternatives (i.e., paths, routes, approaches, equipment configurations, system architectures, circuit techniques, etc.)** will either work at all, or be feasible to meet the desired **specifications or cost targets**, or both of these…Work on combining standard technologies, devices, and/or processes is **eligible if** non-trivial combinations of established (well-known) technologies and

[7] Excerpt from IC 86-4R3 paragraph 4.3
[8] Excerpt from CRA, IC 86-4R3 paragraph 2.13
[9] Excerpt from IC 86-4R3 paragraph 2.13
[10] CRA IC 86-4R3 – glossary
CRA Guidelines[11] Excerpt from IC 86-4R3 paragraph 2.12

> **principles for their integration carry a major element of technological uncertainty**; this may be called a "system uncertainty."[12]

In the author's opinion, this definition underlines the importance of continually outlining initial expectations and explaining resultant variances for work with any significant integration uncertainties.

II.3.3 Phase 3: The circle = Activities & conclusions

The CRA requires work **to be supervised by personnel with appropriate technical backgrounds** and clarifies that in describing activities performed.

> "It **must demonstrate the presence of analysis or experiment** in the methodology you used to carry out the work. It must also include the results you obtained **and the conclusions you made.** For example, the types of technical records that are appropriate to support your claim are:
> - an analysis of the problem,
> - internal design documents and drawings,
> - test data and results, &
> - progress reports."[13]

"The improvement of existing technologies or methodologies using well-established "routine engineering or routine development" would be ineligible if the outcome is predictable. However,…if the .. **activity is carried out in support of an eligible** experimental development project, then the activity **is eligible**."[14]

The CRA has published a series of industry specific examples[15].

[12] *CRA IC 86-4R3 paragraph 2.10.2*
Form T4088 – Guide to form T661
[14] *Excerpt from IC 86-4R3 paragraph 2.13*
[15] *Available for download at /www.cra-arc.gc.ca/taxcredit/sred OR www.rdbase.net*

II.3.4 SAMPLE PROJECT DESCRIPTION [16]

Project #1 : **Name:** improve compounding equipment
SR&ED for the Fiscal Year Ending December 31, 2005
Date Project Started: June 1, 2005
Project was completed (or estimated to be completed): September 30, 2005
[Author's note: This description is based on the CRA information circular 94-1 (Plastics Industry Application Paper, New equipment, Example 2]

I a) Scientific or Technical Objectives:
This project offers an example of modifying older equipment (the Gelimat) to produce a unique form of compounding equipment with advantages such as:

-high output rates,
-high dispersivity,
-absence of shear,
-ease of cleaning as changes are made from one compound to another, and
-low capital cost relative to conventional systems.

[Author's note: Ideally the taxpayer would attempt to quantify standard practice performance levels & methods and then benchmark these improvements against them.]

I b) Technology or Knowledge Base Level:
Currently the company uses a piece of compounding equipment (the Gelimat) to produce a unique various products. [Author's note: Ideally the taxpayer would attempt to identify the specific methods or variables which create the perceived limitations with respect to obtaining the stated objective(s).]

II) Scientific or Technological Advancement:

Uncertainty #1: *Temperature control*
Although mechanical development such as changes in the angles of the rotating blades and increased speed permitting timely fluxing of most plastics without any external application of heat, uncertainty remained as to practical ways to sense and control the temperature. A fraction of a second too long near the fluxing point could lead to an increase of over 50ºC, and hence the potentially catastrophic degradation of plastics such as P.V.C.

III) Description of Work in this Taxation Year:

Activity #1 - 1: *Thermocouples*

Attempts at control by techniques such as by vibration and by thermocouples proved inadequate. [Author's note: Ideally the taxpayer would summarize the testing of the two control techniques and attempt to quantify some of the inter-relations which were observed and any related technical conclusions to explain these results.]

Conclusions:
• This new mixing technology proved unsuccessful for the compounding of P.V.C. and other shear-sensitive and/or temperature-sensitive plastics. [Author's note: Ideally the taxpayer would attempt to quantify some of the inter-relations which were observed and any related technical conclusions to explain these results.]

Activity #1 - 2: *Fibre optics*

[16] *Form T661 available for download at www.CRA-adrc.gc.ca/E/pbg/tf/t661/*

Eventually, the development of a (patented) glass fibre-optics temperature-control system based upon sensing at millisecond intervals the infrared radiation given off by the material as it was heated permitted the fine temperature control (+/- 2?C) to process even P.V.C. to within a few degrees of its degradation temperature. [Author's note: Ideally the taxpayer would further attempt to illustrate a: “hypothesis, design, test, & modify” cycle to related to the above experimentation.]

Conclusions:

• This new mixing technology proved successful for the compounding of P.V.C. and other shear-sensitive and/or temperature-sensitive plastics. [Author's note: Ideally the taxpayer would attempt to quantify some of the inter-relations which were observed and any related technical conclusions to explain these results.]

Technical documentation retained:

Some examples of the kinds of supporting information that should be available for on-site review by the Canada Customs and Revenue Agency (CRA) may include the following:

- Vibration & thermocouple test results from 140 samples June 11-22
- Fibre-optic preliminary investigation notes from technical meetings June 23 - 28 (22 pages)
- Prototype drawings of 4 fibre optic options - June 29 - July 17
- Prototype construction procedures and test results - July 18-27

- any other relevant material/information that substantiates that "technological uncertainties" were addressed within the SRED work.

II.4 Eligible costs & tax credit rates

Qualified expenditures include Canadian;

- Wages,
- Materials,
- Subcontractors,
- Overheads &
- Capital equipment

to the extent that they are, "consumed through SR&ED performed in Canada."

Generally speaking “Qualified Corporations” are CCPC’s with prior-year:

a) taxable income of $300,000 or less AND

b) taxable capital (roughly equal to assets) of under $10 million.

	Business Type	Tax Credit Rates (%)		
		Federal	Ontario	Total
1	**Unincorporated Businesses**	20	0	20
2	**Qualified Canadian Controlled Private Corporations (CCPCs)**	35	10	45
3	**Other "Qualified" Corporations**	20	10	30
4	**All Other Corporations**	20	0	20

The **Ontario and the Federal 35% credits are fully refundable**. The other federal credits (i.e those earned at 20%) must be applied against income taxes payable.

* The provinces of Ontario and Quebec use ranges of $25 and $50 million of assets employed in Canada for phasing out their enhanced credits to “Qualified Corporations.”

II.5 Sample SR&ED tax credit calculation for qualified corporation in Ontario

		Expense type			
I	**Eligible Expenses: for deduction**	**Current**	**Capital**	**Total**	
	Labour	250,000			
	Materials	50,000			
	Subcontractors	100,000			
	ASA (>90%) SR&ED Capital		100,000		
	Eligible (deductible) R&D Expenses	400,000	100,000	500,000	
II	**Qualified Expenses: for calcuation of ITC's**				
	Add				
	Proxy (SR&ED overhead allocation) if elected	162,500			
	Shared Use (>50% SR&ED) Equipment allocation		25,000		
	Qualified Expenditures for SR&ED ITC	562,500	125,000	687,500	
III	**Credits:**				% refundable *
	Ontario Innovation Tax Credit (OITC)				
	Current Expenditures (10%)	56,250			100%
	Capital expenses - ASA SR&ED (4%)		5,000		100%
	Total Ontario Innovation Tax Credit (OITC)	56,250	5,000	**61,250**	
	Qualified Expenditures for Federal SR&ED ITC	506,250	120,000	626,250	
	Federal Investment Tax Credit Earned (35%)				
	Current Expenditures (35%)	177,188			100%
	Capital expenses - ASA SR&ED (35%)		42,000		40%
	Total Federal Investment Tax Credit	177,188	42,000	**219,188**	
	Portion which must be applied vs. taxes payable		25,200		
	Expected Investment Tax Credit refunds	233,438	21,800		
	Total Investment Tax Credits earned*	233,438	47,000	280,438	

* The entire amount of this credit would be refunded to the corporation to the extent that there are no income taxes payable.

III SR&ED cases regarding "technological eligibility"

SR&ED cases regarding "technological eligibility"

TOPICAL AREA	APPELLANT	PRIMARY ISSUE	WIN - LOSE - DRAW?	RULING & RATIONALE	IMPLICATIONS: UNRESOLVED ISSUES AND OPPORTUNITIES	LONG-TERM SIGNIFICANCE
1) a) TECHNOLOGICAL ADVANCEMENT	Northwest Hydraulic	"system uncertainties" basis for	Win	4 of 5 projects eligible due to "system	Landmark case on technological eligibility	High
b)	Rainbow Pipeline	definition of "technological	Win	rejection of an hypothesis is an advance	Significant precedent definition of "TA"	High
2) a) BUSINESS VS. TECHNOLOGY	CW Agencies	software development - business vs. technology?	Lose	3 strikes: no hypotheses, lack of records, 3rd party defense	Need to focus on technology	Moderate
b) TECHNOLOGY	Nashen	software development - business vs. technology?	Draw	2 of 4 projects eligible - technology vs. business	bus. vs. tech. software - eg. Patents U.S. vs. Japan & Europe	Moderate
c)	Zeuter	Is transcribing "info" eligible SR&ED?	Lose	As per NW Hydraulics ruling	Need to verify "data collection" is "commensurate"	Moderate
3) a) SYSTEMATIC INVESTIGATION(SI)	Hun-Medipharma	eligibility of analysis without	Win	SR&ED work can be "experimentation OR	"SI" envisions contemplation of technological	Moderate
b) TECHNICAL	RIS Christie	"lack of documentation"	Lose - round 1	ineligible - lack of any experimentation or analysis	Successful result &/or patent NOT proof of experimentation	Moderate
RECORDS			Win - round 2 appeal (FCA)	engineer died prior to trial - court sympathetic	courts may be sympathetic for CCPC's in extreme circumstances	Moderate
c)	R.J. Miller	lack of technical documentation	Lose	claimant must provide evidence	need evidence of experimentation	Low
d)	Blue wave Seafoods	challenging science officer's analysis	Lose	insufficient evidence to refute CRA recommendations	challenge auditor qualifications before opinion rendered	Moderate
e)	Maritime-Ontario Freight Lines	hardware & software adequacy of documentation	Lose	must illustrate methods utilized & results	need evidence of experimentation	Low

III.1 Technological Advancement (the square)

III.1.1 Northwest Hydraulic Consultants[17] – "system uncertainties" create basis for eligibility

Facts:

The company ("NHC") carried on a specialized branch of hydraulic engineering, incorporated in 1972 as a CCPC by a small group of professors from the University of Alberta. The company was principally an engineering consultant firm, specializing in the development, management and protection of water resources. Their special fields of experience include Hydraulic Modelling, Numerical Modelling, River Engineering, Environmental Studies, Hydrology and Storm Water Management.

Over the period of 11 years from 1983 to 1994 it carried out 17 projects in which designs were tested by means of physical models. Five engineering projects were selected by counsel as representative of the technical issues in question.

The Canada Revenue Agency was willing to accept the existence of technical uncertainty and systematic investigation but held fast that no technical advancements were achieved.

In preparing to go to court the company engaged an expert consultant to outline the main reasons why each of the projects in question met the 3 eligibility criteria.

[17] *Northwest Hydraulic Consultants Ltd., v The Queen, (Date: 1998/05/01 – TCC, Docket: 97-531(IT))*

The Canada Revenue Agency's science officer & expert witness responded,

> A detailed review of the 17 projects, with particular reference to the "advancements" listed in appendix 1 of the Expert's Report, shows, however, that no real new or improved devices or processes were developed. The devices and processes developed by NHC in the course of the modelling work for these 17 projects may have been "new" in the sense of a new location (i.e. a hydraulic structure that was not there before, or the implementation of a river improvement scheme), but all of the work described in the NHC project reports refers to standard devices and processes, which are routinely used in similar design situations all over the world.
>
> After reviewing the 17 projects that issue, I have concluded that none of the projects led to generic or specific technological advancements, with the possibility of creating new or improving existing devices or processes, which could also have been used in other engineering design situations. A test of such an advancement would be the possibility of a patent.

Main Issues:

1) Did the projects in question meet all three of the eligibility criteria; most notably the requirement for scientific or technological advancement?

2) A second significant issue contemplated by the judge in this case was the degree of reliance to place on The Canada Revenue Agency published documents namely, Information Circular 86-4R3.

Conclusions on main issues:

4 out of the 5 projects in question were found to meet the eligibility criteria

Analysis

The Canada Revenue Agency was willing to accept the existence of technical uncertainty and systematic investigation but held fast that no technical advancements were achieved. Based on the evidence examined the judge concluded:

> ***"The respondent's position, ably articulated by Mr. Yaskowich [The Canada Revenue Agency's expert witness], was essentially that the appellant, admittedly a world leader in the field of hydraulic model testing, by its own excellence sets the standard for what represents routine engineering or standard practice. With respect I think that this sets an unrealistically high standard - indeed a standard of perfection that would discourage scientific research in Canada."***

Support for the judge's decision was provided by both:
1) a general review of the legislation as well as,
2) a specific review of individual projects;

Ruling and rationale: 4 of 5 projects eligible due to "system uncertainties"

The judge reviewed the technical eligibility of each of the five selected projects. While we have not included any additional commentary on this analysis, the author would encourage interested taxpayers to read the full case. Of particular interest are sections which highlight reasons for the disallowance of one project as well as significant detail on a project which the judge felt was exemplary of an eligible SR&ED project.

In the author's opinion even the ineligible project may have been potentially eligible given the facts outlined.

Perhaps the claimant's failure on its ineligible project can be attributable to the advancements it had proposed.

In the case of the ineligible project, the taxpayer's advancement was merely the solution that was used to resolve its problem without any related technical observations or conclusions to illustrate further, quantifiable understanding of inter-relations between the components.

In the eligible projects, the taxpayer illustrated numerous situations in which specific components had uncertainty in either design or placement. Furthermore, the taxpayer also attempted to illustrate that choices made on any of these components would have unpredictable upstream or downstream effects on other components. In the author's opinion, had the taxpayer been able to illustrate similar technical facts and alternatives in its ineligible project, it may at have been 100 percent successful in its appeal.

Project	**Result**	Objective/Advance	Reason for judgement
Lock & Dam	**Eligible**	evaluate & propose redesigns for hydro electric powerhouse	uncertainties inherent in change in flow pattern & velocity not readily predictable Used different features than prior stnd. Practice to create desired flow patterns
Sedimentation Study	**Ineligible**	devise a solution to < sediment deposit at particular area of river	3 alternatives - flushing, deadpond & extended peninsula Nothing innovative & final answer would be apparent as a result of tests proposed using stnd. Techniques
Diversion dam & intake for irrigation	**Eligible**	Develop dam for area with braided channels & maintain a low flow channel for intake in hi sediment river	3 models made - river, intake & settling basin Actual research indicated specific uncertainty in each design model as well as inter-related uncertainties between the models. Illustrated specific failures of existing sedimentation model or "design guide" on the proposed design
Dam apron repair	**Eligible** ***weak***	reproduce conditions to determine reasons for damage & quantify then document effects of a plunge pool	1:40 model created for 3 alternatives 1 -radial divide walls, 2 -change gate sequence, & 3 -reshape apron & sealing of apron joints Advance not spectacular in the judge's view but it did > understanding of effect of falling jet of water & spreading of flow through change in sequence of gates as well as dividing wall system
River diversion dam	**Eligible** ***strong***	Optimal combination of weirs, radial gates & walls of diff. Types	Identified 5 project design options - 3 for physical observ'n 1 -radial sluices & free ogee crest 2 - flow release control by collapsible rubber dams 3 - 4 sediment sluices sep. by overflow sec'n w gates Identified additional related uncertainties on layouts & supported "need for physical vs. numeric modelling" Innovative combination & alignment of factors seen by judge as strong support for technological advancement

Judicial review of CRA Information Circular 86-4R3

The judge recognized and commented on the legal implications of the Income Tax Act's definition of "experimental development." He also referred to the French wording of the legislation to clarify any ambiguity which he felt may be found in the words "including incremental improvements thereto." In his view,

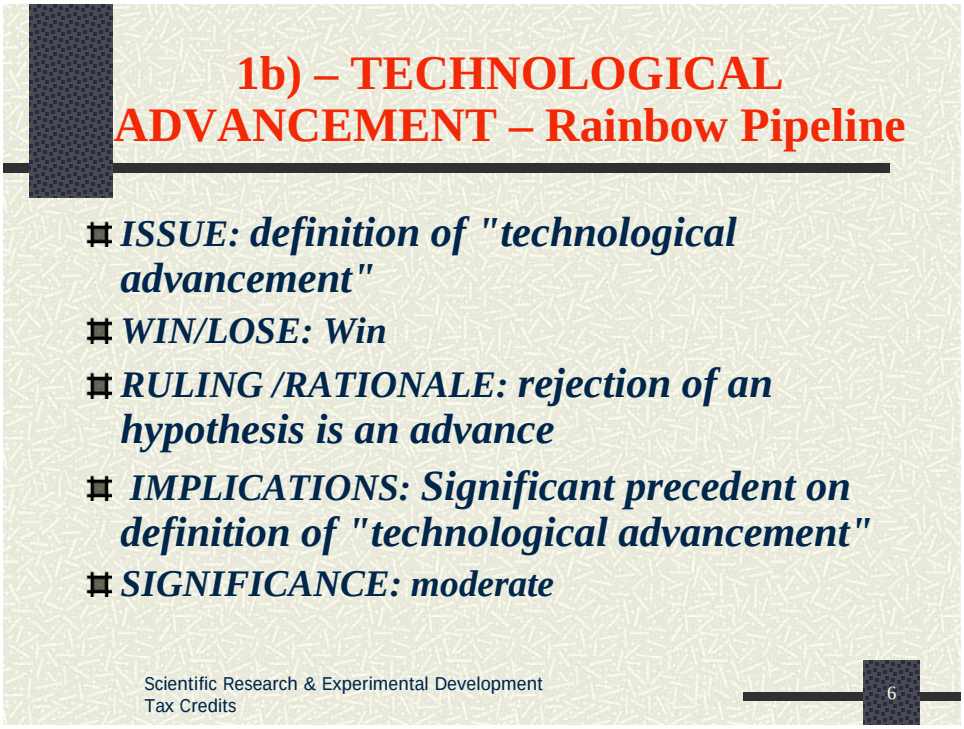
> "The addition of these words ["including incremental improvements thereto"] in 1995 applicable to taxation years ending after December 2, 1992 appears to have been in response to a concern that the achievement or attempted achievement of slight improvements was not covered. I should not have thought it was necessary to say so. **Most scientific research involves gradual, indeed infinitesimal, progress. Spectacular breakthroughs are rare and make up a very small part of the results of SR&ED in Canada**."

In the author's view this commentary appeared to directly address The Canada Revenue Agency's expert's concern that a technological advancement must represent generic or specific technological advances. In four out of the five projects examined the judge held that the taxpayer had made specific technical observations not readily apparent to qualified personnel. These observations were generally in the form of numerical or scientific models that provided the taxpayer with increased understanding of interactions between otherwise known components.

Comments and author's opinion:
In the authors' opinion, the judge's commentary highlighted the weakness of the science auditor's position: the fact that something such as a new location can create system uncertainties which in turn create the potential for technological advancements. It would appear to the author that this concept of technological advancement is clearly contemplated in The Canada Revenue Agency's information circular 86 -- 4 as the knowledge gained on the resolution of "system uncertainty." As such, the judge's ruling may not have been so much a condemnation of The Canada Revenue Agency's policies but rather, the application of these policies by a particular auditor.

Based on the depth of analysis given to technical eligibility issues and the support which the case purports for existing The Canada Revenue Agency Information Circular 86-4R3 (and supposedly all future release of IC 86-4) in the author's opinion the case is of long term technical significance.

III.1.2 Rainbow Pipeline[18] - definition of "technological advancement"



Facts

Rainbow Pipeline Company Ltd. (Rainbow) had operated the 24-inch trunkline (approximately 300 kms long) for 26 years (1967 to 1993) without any pipeline ruptures. In February and July 1993, it had two significant ruptures in the 24-inch portion of its pipeline. Those two ruptures were believe to be caused by a combination of Stress Corrosion Cracking ("SCC") and metal corrosion. Further inspection discovered 523 defects which were caused by SCC and/or metal corrosion.

Rainbow had also retained an expert consultant to identify, by aerial survey, sites that might be SCC susceptible, and characterize SCC at such excavation site using onsite investigation techniques. In several instances dig sites believed to be susceptible to SCC, additional soil, environmental and other data was gathered to enhance knowledge about how soil type, drainage, and topography might influence the existence of SCC.

The company identified about 140 different expenditures where they had consulted with subcontractors to determine what portion of their work was SR&ED vs. non-SR&ED repairs.

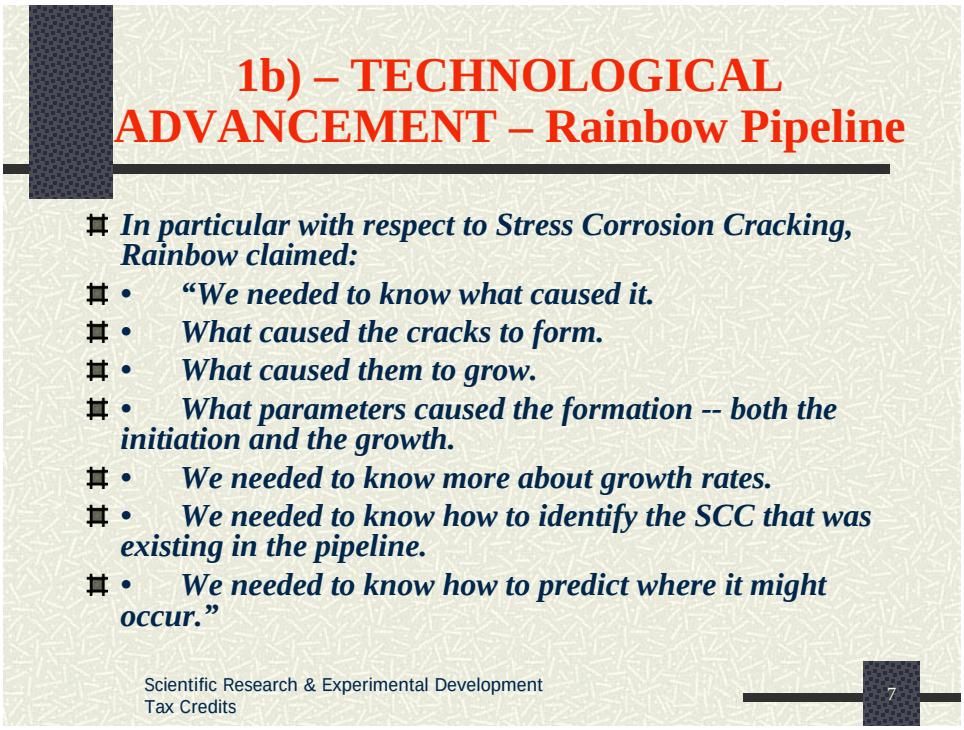
In its taxation year ending December 31, 1994, the company spent $19,600,000 on projects connected with and resulting from pipeline leaks. In addition to issues as to whether certain payments, were current expenses or capital outlays, the CRA contested the taxpayer's claim that $2,081,325 of these expenditures were "scientific research and experimental development," with a resultant federal investment tax credit of $416,265.

Issues:

The judge was,

[18] *Date: 1999/09/15, Docket: 96-4369-IT-G I, (TCC)*

"predisposed to think that any pipeline corporation with a trouble-free operating history like the Appellant, suddenly faced with a major repair (replacing 44 kms. of pipe) and 523 minor repairs, would not embark upon a replacement and repair program costing $17.5 million unless, at the same time, the corporation commenced a serious inquiry into the **cause and effect of such repairs**. There is no doubt that the Appellant commenced such an inquiry. **The question is whether the inquiry was SR&ED**."



Relevant legislation & analysis:

Rainbow's position:
The company claimed that its "process" was determining the cause and effect of SCC even if there were only "incremental improvements" to that process. And that it performed, "work with respect to engineering, operations research, data collection and testing commensurate with the needs, and directly in support, of its [experimental development] work."[19]

In particular with respect to Stress Corrosion Cracking, Rainbow claimed:
- "We needed to know what caused it.
- What caused the cracks to form.
- What caused them to grow.
- What parameters caused the formation -- both the initiation and the growth.
- We needed to know more about growth rates.
- We needed to know how to identify the SCC that was existing in the pipeline.
- We needed to know how to predict where it might occur."

The company relied on the precedence set in the case of Northwest Hydraulic Consultants Limited v. The Queen, which clarified:

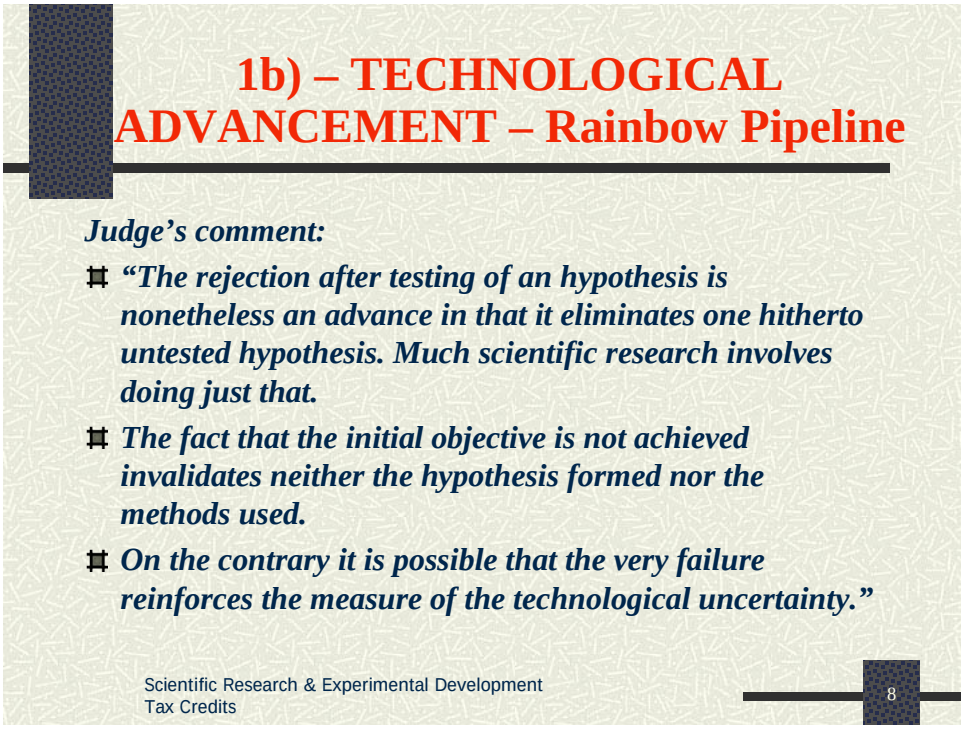
> "Most scientific research involves gradual, indeed infinitesimal, progress. Spectacular breakthroughs are rare and make up a very small part of the results of SR&ED in Canada."

[19] *which are activities included within the definition of SR&ED – per ITA subsection 248(1)*

CRA position:
The CRA relied on the1988 decision of the tax court in the case of Sass Manufacturing Limited in which amounts expended on the fabrication of a prototype machine[20] were SR&ED. In that case, the court clarified:

> "The evidence falls far short of establishing the existence of **any** systematic investigation … Systematic investigation connotes the **existence of controlled experiments and of highly accurate measurements** and involves the **testing of one's theories against empirical evidence**. Scientific research must mean the **enterprise of explaining and predicting** and the gaining knowledge of whatever the subject matter of the hypothesis is. This surely **would include repeatable experiments in** which the steps, the various changes made and the **results are carefully noted**."

Ruling and rationale: rejection of an hypothesis is an advance



Weight of "third party" evidence - Standard practice at the outset:

Rainbow's evidence included studies from the late 1980's suggesting "significant" SCC on a pipeline was strongly related to the terrain conditions where there was the potential for pipe coatings to have disbonded.

In 1995-1996, the NEB [National Energy Board] held an inquiry into SCC on Canadian oil and gas pipelines which confirmed that, "there was very little research on SCC failures in pipelines prior to 1993-1994." Rainbow was invited by the NEB to participate in its public inquiry concerning SCC on Canadian oil and gas pipelines. Rainbow participated in the SCC inquiry and made available, to the inquiry, the results of its research into SCC as a result of the pipeline ruptures in February and July, 1993.

[20] *[Author's note: Ironically, this machine was intended to install drainpipe!]*

At the time of the Inquiry, six CEPA (Canadian Energy Pipeline Association) member companies were using predictive models to assess the SCC-susceptibility of their systems, or portions thereof, and five other member companies were developing predictive models.

These models had further established that, while the information on terrain conditions known to promote SCC susceptibility may be applied to all pipelines in the same area, because the data about each pipeline -- its coating, its year of construction, its operating history - an accurate predictive model can be used only for the pipeline for which it was developed.

As a result the judge also placed, "significant weight on the NEB [National Energy Board] Inquiry Report because it was **not prepared to advance the cause of either party to** this appeal." **And** "because it **describes indirectly the state of knowledge of SCC** (its cause and effect) in 1993 and 1994 when the Appellant had its two major SCC ruptures and performed the necessary replacement and repairs."

Difference(s) between Rainbow & Sass:

Unlike the current evidence presented by Rainbow, the judge noted that, in Sass, none of the conclusions of the CRA's expert were, "seriously," challenged by the taxpayer.

The judge then examined the question: "Did the process result in a technological advance, that is to say an advancement in the general understanding?" On this issue he commented,

> "The **rejection after testing of an hypothesis is nonetheless an advance** in that it eliminates one hitherto untested hypothesis. Much scientific research involves doing just that. **The fact that the initial objective is not achieved invalidates neither the hypothesis formed nor the methods used**. On the contrary it is possible that the very failure reinforces the measure of the technological uncertainty."

As a result he concluded,

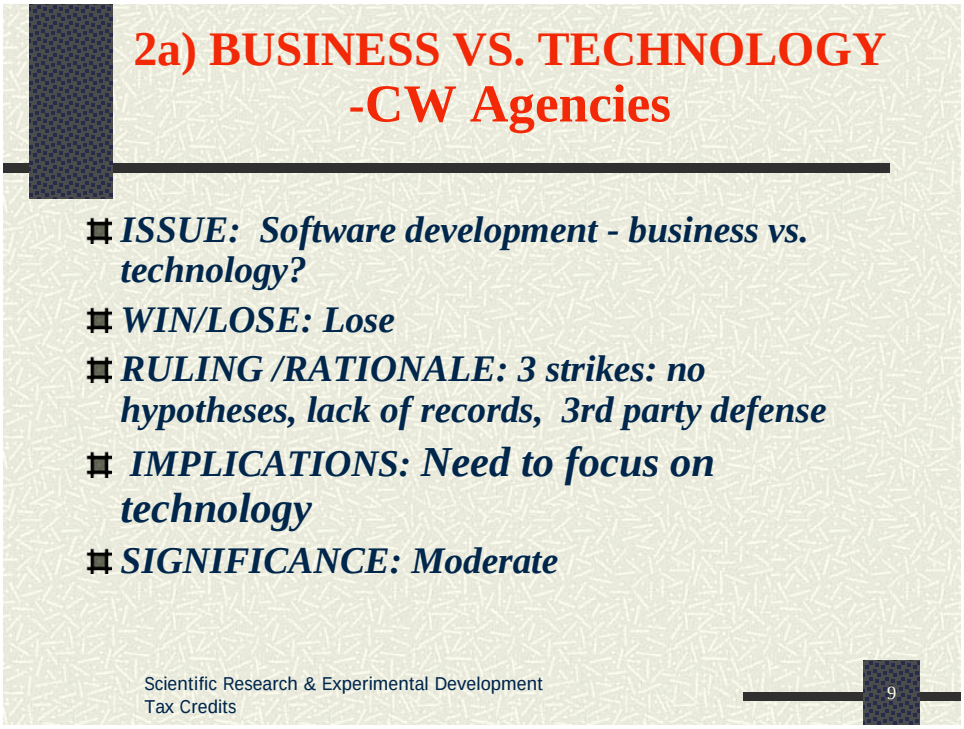
> "It appears to me from the Sass Manufacturing decision that the taxpayer was not faced with a technical problem (like leaks in a pipeline) which threatened its business. **Sass was simply trying to build a prototype machine whereas Rainbow Pipe Line attacked the problem which threatened its business and, at the same time, started a "systematic investigation ...** in a field of science or technology by means of experiment or analysis".

Implications and author's commentary:

Given that this case is one that you providing detailed examination of the "technical requirements" of an eligible SR&ED claim, as well as relevant reference to similar precedence, in the author's opinion, this case is of long-term importance to all SR&ED claimants.

III.2 Business vs. Technology Development

III.2.1 C.W. Agencies[21] - whether application software development SR&ED



Facts:

The software developed by the Appellant was sometimes known as the International Distributed Lottery System (IDLS). The case was fought on an all or nothing basis. Either the activity viewed as a whole constitutes SRED or none of it does.

In the course of creating the software the taxpayer utilized:

a) a computer platform based on newly emerging technology, that is to say, object-oriented technology said by the Appellant to be fundamentally different and in its infancy;
b) a CASE tool, that is to say, a computer aided software engineering tool for the writing of computer code; and
c) rapid prototype methodology whereby prototypes of components of the software are created, tested and then reworked to remedy deficiencies and add new functions or capacities.

Object-oriented technology, as I understand it, brings together data structures and functions to create objects capable of further use. Rapid prototype methodology was a departure from the then traditional "waterfall" methodology in which the entire software program is created in one stroke.

[21] *Date: 2000/08/30, Docket: 98-1324(IT)G, (TCC)*

Evidence of expert witnesses

- **For the company**

Dr. Jacob Slonim, Dean of the Faculty of Computer Science at Dalhousie University, was called by the company. In his report, Dr. Slonim himself made reference to the inadequacies of the Appellant's records. He noted:

> "The one disappointment, which I had, was the **lack of project management and documentation that is more detailed.** I understood that the project management, which would have helped me who (*sic*) to see where the difficulties were, was not retained at the C-W Agencies. I saw one or two pieces of documentation that indicated to me that they used the project-management tool. Furthermore, although I have a bias since I worked for IBM for ten years and know their procedures quite well, employing a project manager from IBM, who did not draw a detailed project management plan, would be most surprising. It is possible that he retained it upon his departure from the C-W Agencies. **Without it, the analysis was definitely a lot more difficult to do.** However, as I mentioned, because of the numerous uncertainties in this project, I have no doubt that experimental research was being conducted."

In order to deal with the inadequacy of the documentary record Dr. Slonim examined changes in the data structure and, from periodical changes in the log generated by the CASE tool, he felt that he was able to infer the changes that were being made.

Dr. Slonim then described the Appellant's hypothesis as follows:

> " … C-W Agencies hypothesized that the benefit gained from the object-oriented architecture would result in a higher productivity per person from the reusability of components and a decrease in system development time compared to procedurally based development methods. At the same time, there were major drawbacks: the need to manage the uncertainty of performance and scalability of the new unproven methodology. It is the scale of this system, which justifies it as experimental research."

For the CRA

Dr. Ken Takagaki was called as an expert witness for the CRA. He holds a Ph.D. degree from the University of British Columbia. He is the Dean of the School of Computing and Information Technology at the British Columbia Institute of Technology. Between 1985 and 1988, he worked on his thesis which pertained to object-oriented information systems.

Dr. Takagaki addressed the question whether the work involved in the development of information systems necessarily involves scientific research within the meaning of s. 2900. He distinguished between those information system development projects which fall within s. 2900 and those which do not.

> " … Where an ISD project **utilizes a new principle or concept and the project is undertaken primarily to test the new principle** or concept, it may conform to 2900(1). Or, parts of an ISD project may utilize new knowledge, principles or techniques conforming to the requirements of 2900(1)."

Next Dr. Takagaki reviewed the Appellant's ten projects both individually and collectively. He noted:

> "In all of their projects, CW Agencies Inc. appeared to have made efforts to follow a process of identifying requirements, creating prototypes with their CASE tool., testing, design refinement and iteration, i.e. routine systems development, using commonly applied methodologies as taught in courses or explained in textbooks of the time. … I characterize these investigations as those of competent and prudent *users* of complex, commercially available technologies rather than those of researchers seeking to discover new knowledge, concepts or principles."

By way of rebuttal Dr. Slonim said he was surprised that Dr. Takagaki had failed to identify any of the 21 uncertainties and speculated that Dr. Takagaki's failure to identify the uncertainties resulted from an inadequate opportunity to examine the technology utilized by the Appellant.

Issue:

The primary issue is whether the created application software for use in its business conducted SR&ED

Judgment & rationale: ineligible due to lack of technical hypotheses and documentation

Strike 1 – lack of specific technical hypotheses

The judge expressed his doubt as to whether the "hypothesis" proposed by the company is one which is capable of being proved or disproved by means of scientific research stating,

> "It seems to me that it is **simply too vague**. The word **hypothesis** in this context is normally considered to mean a **provisional concept** which is not inconsistent with known facts and **serves as a starting point for further investigation by which it may be proved or disproved objectively**. Even if this hypothesis is one which can be tested by scientific research it does not appear that the Appellant attempted to test it. All the Appellant really attempted to do was to develop software."

Strike 2 – lack of detailed project records

The Court reviewed previous precedence set in the case of Northwest Hydraulics:

"Did the person claiming to be doing SRED formulate hypotheses specifically aimed at reducing or eliminating that technological uncertainty? This involves a five stage process:

> (a) the observation of the subject matter of the problem;
> (b) the formulation of a clear objective;
> (c) the identification and articulation of the technological uncertainty;
> (d) the formulation of an hypothesis or hypotheses designed to reduce or eliminate the uncertainty;
> (e) the methodical and systematic testing of the hypotheses.
>
> Although the *Income Tax Act* and the Regulations do not say so explicitly, it seems self-evident that a **detailed record of the hypotheses, tests and results be kept**, and that it be kept as the work progresses."

As admitted by the expert witness himself, little if any evidence of SR&ED was maintained by the company.

Strike 3 – use of outside consultants to defend claim

It is the author's belief that project technical descriptions should always be prepared and reviewed by the technical staff involved with the research. The courts supported this position in this case as the judge clarified,

> "An odd feature of this case is that **virtually all of the evidence** relating to the detail of what **was in fact done** by the Appellant in the course of designing and writing the software was given**, not by a person directly and personally involved in the process, but rather by the Appellant's expert, Dr. Slonim**. As I appreciate the evidence, Dr. Slonim was compelled by the absence of a detailed project management plan to examine the results of the Appellant's work, next to examine

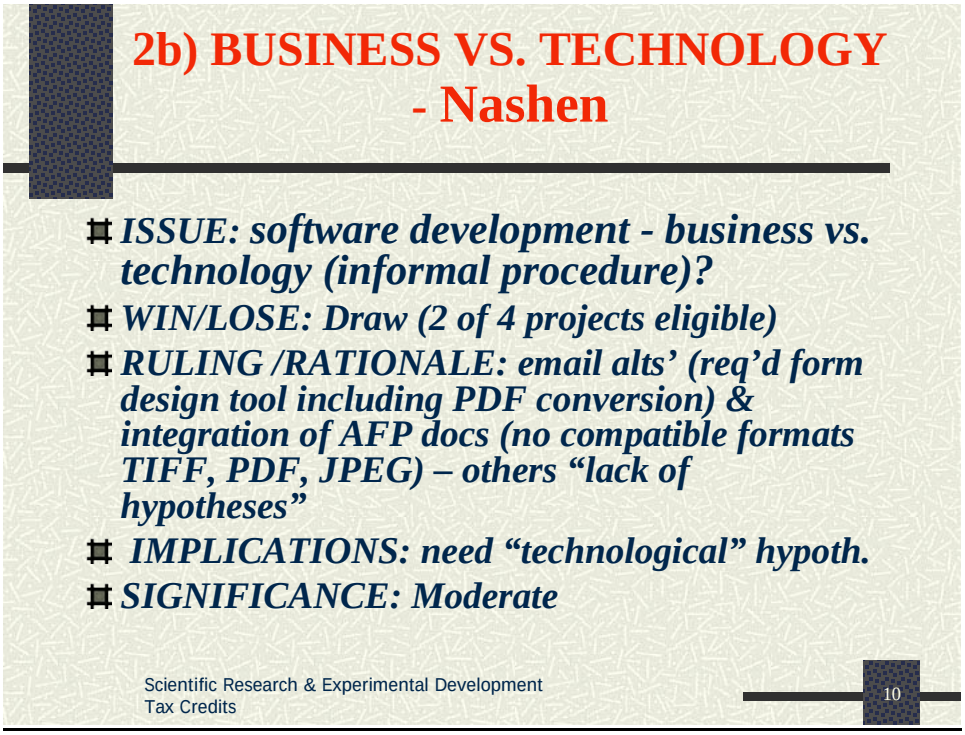
> the tools and technology used by the Appellant and, finally, to arrive at conclusions regarding the problems which he thought must have been faced by the Appellant and the steps taken to solve those problems. I note that the **failure to call the project manager or some similarly placed person was never explained by counsel for the Appellant.** In deciding what must in point of fact have happened, based on conjecture with regard to "the numerous uncertainties in this project", Dr. Slonim arrived at conclusions which in my view were not justified by the evidence."

Based on this evidence the judge felt that the CRA's witness, Dr. Takagaki, took a more prudent and defensible position to evaluating the claim. As a result the taxpayer's appeal was dismissed.

Implications & Author's commentary

This case outlines the importance of linking all activities under claim to the resolution of one or more specific technical uncertainties. Given the great number of "system' uncertainties inherent in most software development projects, this is a common problem of the software industry in general. It is our belief that our R&D Base software, by correlating all activities and conclusions to one or more predetermined technical uncertainties, can reduce or eliminate the types of documentation issues faced by the company in this case.

III.2.2 Nashen[22] – eligible software development



Facts: entire software project claimed

The company has been in business for over 16 years. Broadly speaking, its business includes developing, customizing and modifying accounting, distribution, manufacturing and related software for the distribution and manufacturing industries. These systems run on "midrange" computer servers (currently the IBM AS/400 with 10 to 500 attached workstations).

During its 1998 taxation year it claimed four separate research projects with a resulting claim for SR&ED expenditures of $88,188 and investment tax credit of $30,866.

Project #1 – Common Driver for API's,
Project #2 – E-mail alternatives,
Project #3 – Integration of AFP documents, &
Project #4 – Knowledge-based business.

- Projects 1 & 4 involved development of context-sensitive electronic forms,
- While projects 2 & 3 involved developing a system for electronic mailing of complex documents.

Issue: Eligibility of SR&ED activities

The CRA disallowed the credit on the basis that it was,

> "Unclear whether the company proceeded by formulating hypotheses specifically aimed at eliminating technological uncertainty and that they presented no detailed record of hypotheses, tests and results to support claim."

[22] *Nashen & Nashen Consultants Inc. v. The Queen - 06/15/01-- Doc. 2000-3621(IT)I (T.C.C.)*

Relevant legislation and analysis:

Given that the case focused on technical eligibility issues the taxpayer responded with the following additional technical information:

A. Technological Limitations of Current Technology

At the outset of the project, there was no capability for the AS/400 system to e-mail directly (with no other intervention) a document (i.e. a spool file ready for printing) which has more than just text. When the spool file has only text, the AS/400 command will after some straightforward configuration, be able to easily e-mail the file to any address on the Internet.

However, many applications today create spool files which have advanced function printing (AFP) capabilities. These functions include the embedding into documents of design elements, such as graphics, forms (called overlays) logos (page segments), bar codes, different font character sets, etc.

There is no facility, either offered by IBM, or by third parties, to e-mail directly from the AS/400 these complex documents. Discussions with IBM, and with third parties that offer related fee-based products, indicated that a tool of this type would be very marketable!

B. Technological Uncertainties

Determine if there is a method to email spool files that contain advanced, embedded functions.

C. Related SR&ED Activities

During 1997, the Company's team undertook to create a workflow based system, with folders as controlling objects.

During 1998, the research team focused on the creation of a Graphical Development Tool that was to be capable of producing exact electronic replicas of paper forms, store them in a server (a AS-400 machine) and a Form Filler Tool to provide accurate and flexible form filling.

The Company acquired the Advanced Function Printing (AFP) Utilities for the AS-400 computer that is compatible with the OS-400. Thus a created PC form may be up-loaded to the AS-400 server. The AFP Utilities include several resources such as form definitions, overlays, page segments, fonts and page definitions.

However, the AFP function was not a Form Design Graphical Development tool. It is not compatible with popular graphic formats such as PC Paintbrush bitmap (PCX), Tag Image File Format (TIFF), Graphics Interchange Format (GIF), JPEG compressed bitmap (JPEG) and Portable Document File (PDF) (Adobe Acrobat – displayable with a Web browser).

For the **desired E-Mail capability**, after experimenting with all PC-based e-mail utilities, it was found that there was a **need for a Form Design Tool that could convert the AFT form into a PDF format**, which was retained as the most promising standard.

[Author's note: an ideal description would compare results to initial expectations for each of the utilities and tools examined. These conclusions themselves may in fact represent technical advancements.]

D. Technical conclusions

By the end of the 1998 fiscal year, following tests with JPEG, GIF and PDF standards the 1999 planned research program called for the development of a Framework that combined:

- Form Design Toolkit
- Form Filler Frontend
- And Central Advanced Function Printing

[Author's note: an ideal description would provide additional detail of the conclusions to date which have resulted in this vs. other potential frameworks and briefly provide cite any remaining technical uncertainties.]

Ruling & rationale: 2 of 4 projects eligible based on technological vs. business uncertainties

On the basis of the project review the judge concluded that Projects #1 and #4 did not display strong enough evidence of a technological advancement to support the SR&ED claim but that Projects #2 & #3 did. As a result the company was entitled to credits on projects #2 and #3, subject to informal procedure limitations.[23]

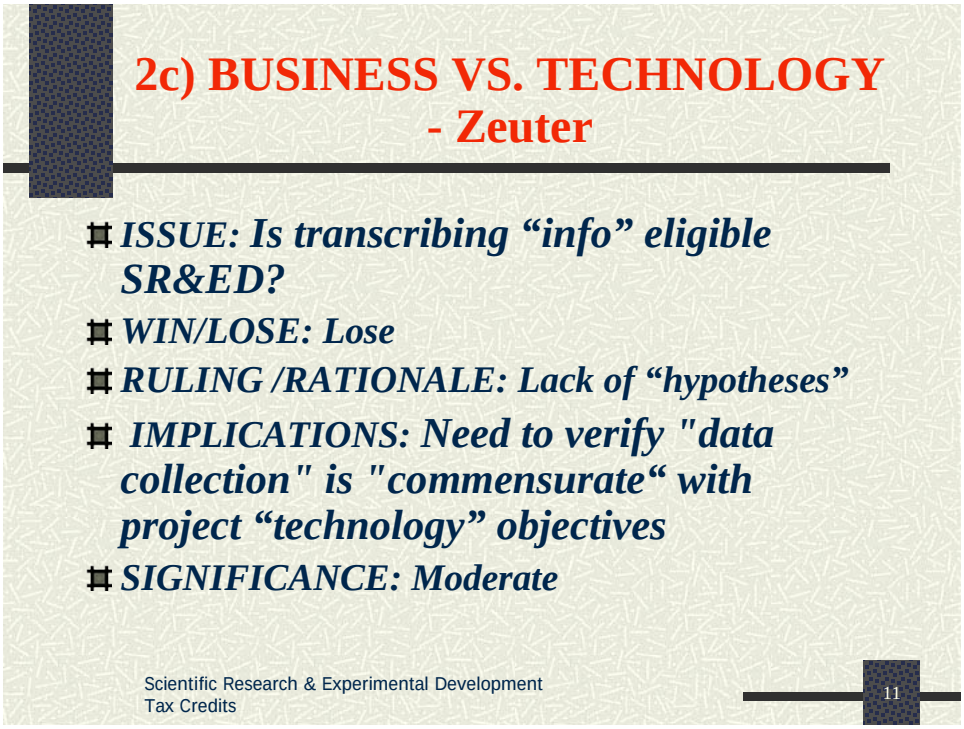
Implications and author's commentary

In the author's opinion, this case exemplifies one of the most commonly encountered problems when preparing SR&ED claims: isolating the technological, from the business uncertainties of the project. Even though this case is only the result of informal procedure, it is one of the first SR&ED tax cases with respect to software eligibility and is likely therefore of moderate short-term significance.

The fact that this and many recent cases are being filed as "informal appeals" allow the small taxpayer a fast and cost effective ($100 filing fee) method to complete his or her appeal, with forms that are directly available from the internet.[24]

[23] *Informal appeal generally limited to claims of $12,000 of taxes under appeal.*
[24] *tax court forms available at: www.tcc-cci.gc.ca/rules/inf/*

III.2.3 Zeuter[25] – when data collection eligible



Facts:

Mr. Slater (the principal researcher) obtained a Bachelor degree in Engineering Physics and a Masters Degree in Electrical Engineering from McMaster University.

The ATG project was basically an on-line learning tool to be used by high school students

The Appellant hired local students who accumulated, verified and analyzed wide ranges of information.

The students would catalogue the data under the proper heading and then store it as Hypertext Markup Language ("HTML") webpages.

The project was ambitious; well over 20,000 web pages were produced covering over 1.5 million subjects.

Mr. Slater said that over a 10 year span, more than 70 summer students were hired with an average of seven students per year.

Much of the information came from the online Encyclopedia Britannica; however, Mr. Slater argued that, since students reading an encyclopedia would be "bored to tears", a website such as the ATG is necessary.

The CRA allowed the claims during the 1995-1999 period however **denied them for 2000-2002**.

Mr. Slater contends that, since the claims for SR & ED were allowed for the years 1995-1999 inclusive, they should be further allowed for the 2000, 2001, and 2002 taxation years.

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[25] *Zeuter Development Corporation v. The Queen - Citation 2006TCC597 Oct 31, 2006 - Docket: 2005--3306(IT)*

Issue(s):

Is the transcribing of “known information” to the internet eligible SR&ED?

Relevant legislation and analysis:

"Scientific research and experimental development" is defined for income tax purposes as follows:

> “ means **systematic investigation** or search that is carried out **in a field of science or technology by** means of **experiment or analysis….**”[26]

Ruling & rationale:

In the judges’ view the governing approach to be taken in determining whether something qualifies for SR & ED was set out in detail by Chief Justice Bowman in “Northwest Hydraulics”[27] namely,

1. Is there a **technical risk or uncertainty**?

Based on further examination he proposed,

“The real difficulty in the project related to the collection, verification, and cataloguing of the various data gathered by the students. While these uncertainties may have been great, they are not technological or scientific uncertainties that are required for the ITCs.”

As a result he concluded,

> “the verification and **presentation of already known information does not constitute an advancement** in an existing body of scientific knowledge. Clearly it may help others in doing their own research, but it is not experimentation or analysis in and of itself.”
>
> “..If competent professionals in the field can resolve these issues with predictability, **there is no technological uncertainty.** This is exactly the situation in issue.”

The net result being that the **company was ineligible** for ITC’s during the years in questions.

Implications and author’s commentary

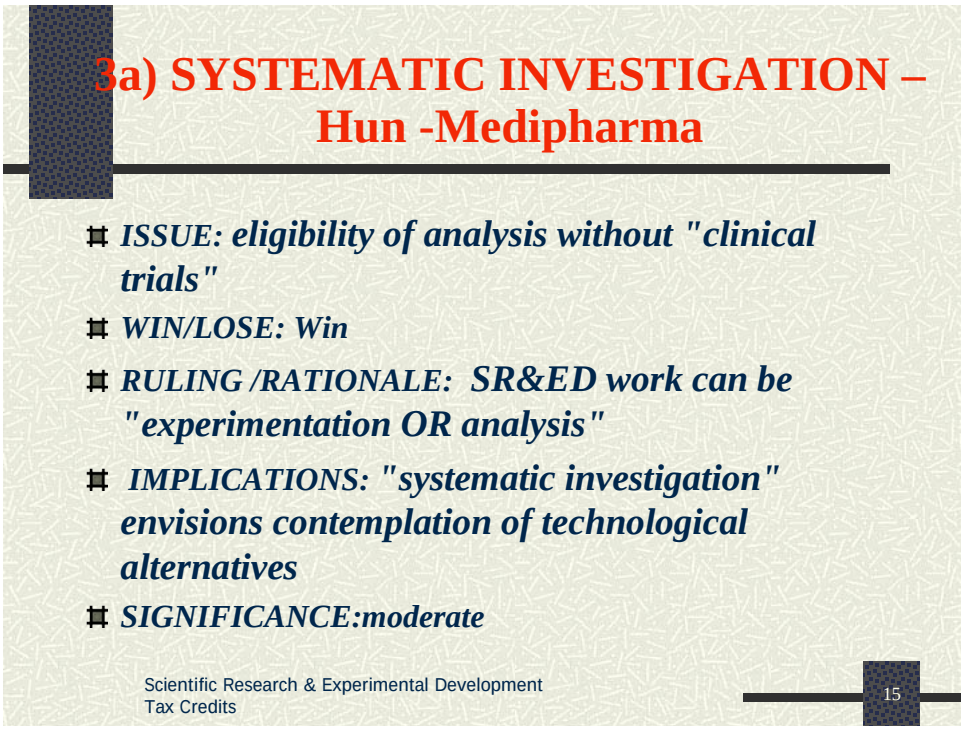
In the author’s opinion, this case **outlines** some of the most **common mistakes** and misunderstandings on behalf of claimants;

- having impressive technical designations or training does not automatically make all work SR&ED
- **collecting (or uploading) of data is only eligible if it is necessary to resolve a pre-stated, technological uncertainty**

[26] *SR & ED definition per ITA subsection 248(1)*
[27] *Northwest Hydraulic Consultants Limited v. The Queen, 98 DTC 1839 (T.C.C.) ["Northwest Hydraulic"].*

III.3 Systematic Investigation & maintaining documentation

III.3.1 Hun-Medipharma - "eligibility of analysis without clinical trials"



Facts

This appeal concerns SR&ED expenses for the 1994 taxation year. It is one of the few SR&ED tax cases which went through under the informal appeal process which typically requires that the amounts in dispute be less than $ 12,000 [For additional details see Tax Court of Canada Act, section18.]. In this case the expenditures not qualified for ITC were $ 5,165 with a related reduction in Federal ITC's of $ 5,165 x 35%= $ 1,808.

The appeal examined two separate projects: Project 1/b - Anti-stress Tablet (for human use) & Project 2: Medical Skin Care Products (for human use).

Main issues and conclusions

The primary issue of this case might be summarized as, whether the legal definition of SR&ED requires the scientific research and experimental development to be carried out by "experiment and analysis" or merely by "analysis." In the judge's opinion, "It can be made by *experiment OR analysis*, provided it is in fact a systematic investigation."

A secondary issue involves the degree of detail which is appropriate for an SR&ED project submission. The judge noted that the taxpayer provided details of analysis and "systematic investigation" which were not clearly outlined in the original project submissions and, had they been clarified originally, might have resulted in an eligible ruling from the auditor.

Analysis of main issues

A. Science auditor's major concern with both projects

Though the science auditor in this case did not doubt the claimant's technical credentials, she rejected the project for the Anti-Stress Tablet because it,

"**consisted only of a review of the literature on a certain subject** in the preparation for a DIN [drug submission] application to HPB [Health Protection Branch]. Also, there were **no clinical trials conducted**."

She made the same comments with respect to the project on skin care, although she admitted that there, "was conceptual work done on the project."

B. Additional details submitted with respect to Project 1/b - Anti-stress Tablet (for human use)

The taxpayer explained that, "the **data had been gathered in Germany for the use of a drug used for a certain purpose. Their intended purpose was different** and that the analysis was for that purpose." The taxpayer allegedly produced further documents to evidence the fact that the analysis was systematic.

In its initial application the company erroneously submitted that, "all of the expenditures for Project 1/b were in relation to the **preparation for the DIN application**." However, during the audit and at the appeal, the taxpayer claimed that, no expenditures were claimed for that work. **But rather that the**, "work completed **was for the analysis of data** for the advancement of medical sciences."

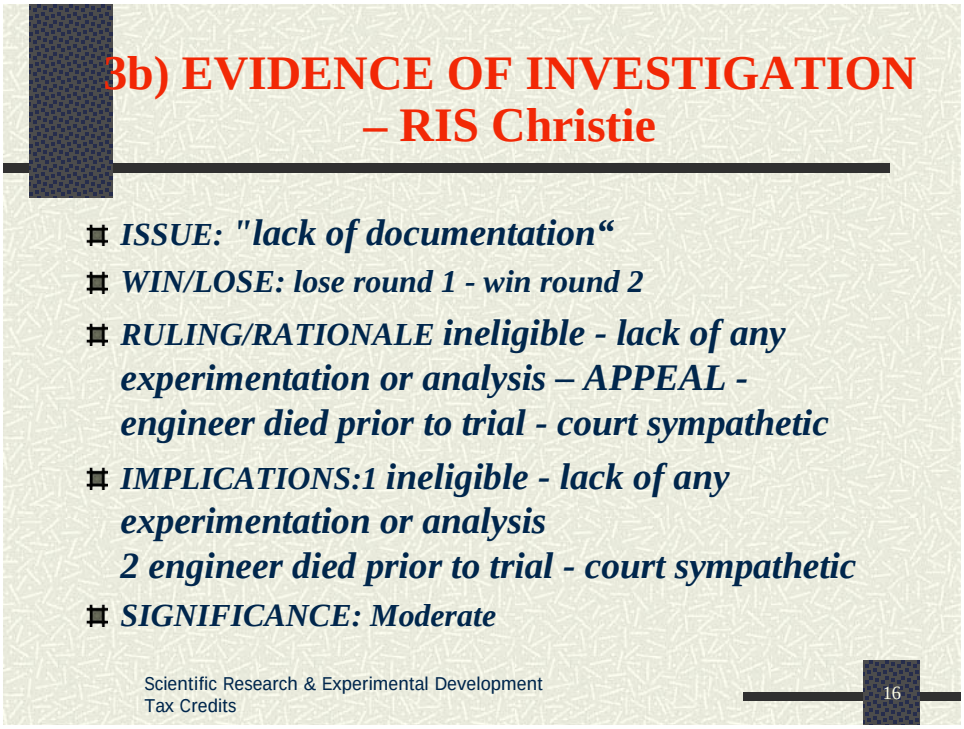
Ruling & rationale: SR&ED work can be "experimentation OR analysis"

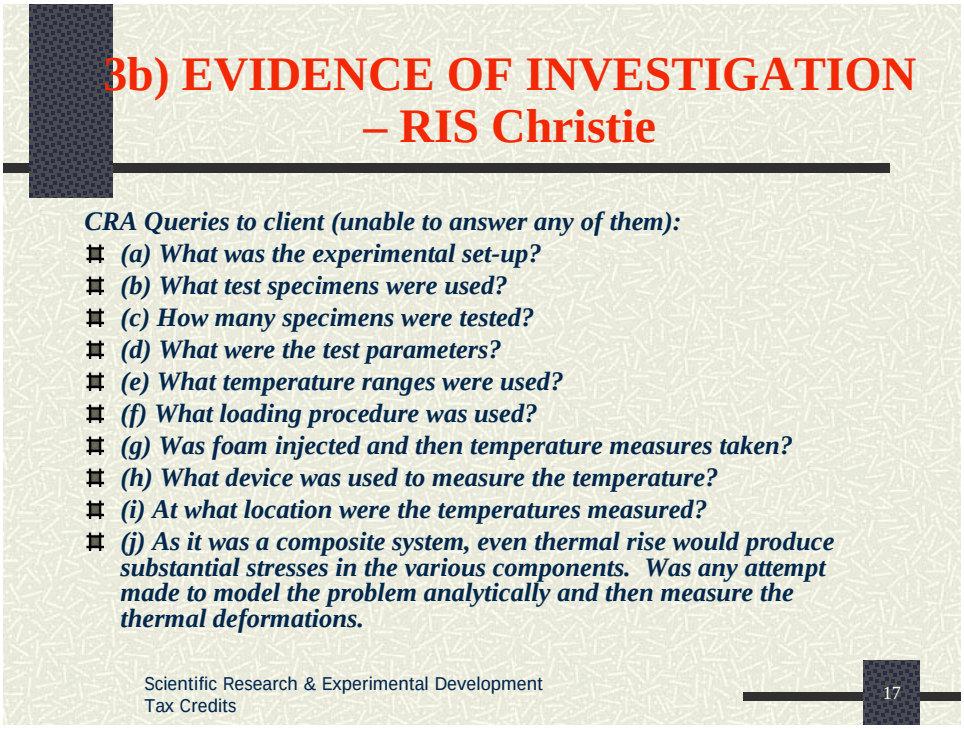
The judge concluded based on the evidence provided by the taxpayer that, "the R&D expenses claimed by the Appellant appear, *on a balance of probability*, to be within the meaning of paragraph 2900(1) of the regulations [i.e. the definition of SR&ED]." The fact that the taxpayer did not conduct clinical trials in this case was not considered enough to negate the eligibility of the work since, in the judge's opinion the legislation, "does not require that systematic investigation be made by both experiment and analysis. It can be made by *experiment or analysis*, provided it is in fact a systematic investigation."

Comments and author's opinion:

In the author's opinion, this case outlines that a broad variety of activities are envisioned in the definition of "systematic investigation." At the same time it emphasizes that concise explanations of the work done, in relation to specific technical uncertainties contemplated, must to be provided in all cases: even when the costs under claim may seem small enough to warrant a small amount of detail. As such, despite the small level of costs under appeal, in the author's opinion, this case is of significant long-term importance.

III.3.2 RIS Christie[28] - "lack of documentation"





[28] ***RIS Christie v. The Queen*** *[1996] E.T.C. 537 (TCC), [1999] E.T.C. 2004 (FCC)*

The taxpayer in this case had developed a new concrete forming medium that was eventually patented. Though a patent was eventually granted for this process the CRA went as far as challenging the fact that, "any new technologies were developed." Their main argument focused on the non-existence of, "systematic investigation," in that no evidence of repeatable experiments and subsequent analysis of those experiments took place.

The taxpayer started with a review of similar patented technology and involved expert advice from an external engineering consulting firm.

The taxpayer was able to provide 39 pages of documentation relating to technical issues however, none of this documentation evidenced analysis of tests or hypothesis performed and appeared to be either general concepts without any technical specifics or routine applications to the correct answer.

II) SCIENTIFIC OR TECHNOLOGICAL UNCERTAINTY:(Define the scientific &/or system uncertainties)

Thermal stresses
[Author's note: Unfortunately, the taxpayer provided very little evidence in its own support. However, the CRA expert provided the following example of issues which he would have accepted within the realm of eligible SR&ED in this circumstance.]

Potentially eligible activities:
The expert witness for Revenue Canada provided a list of 10 potential technical issues that he would have expected to see examined in an eligible claim in the area of research under review, including;

(a) What was the experimental set-up?
(b) What test specimens were used?
(c) How many specimens were tested?
(d) What were the test parameters?
(e) What temperature ranges were used?
(f) What loading procedure was used?
(g) Was foam injected and then temperature measures taken?
(h) What device was used to measure the temperature?
(i) At what location were the temperatures measured?
(j) As it was a composite system, even thermal rise would produce substantial stresses in the various components. Was any attempt made to model the problem analytically and then measure the thermal deformations.

[Author's note: Ideally we would also explain "why" any of the above decisions were made. These types of issues are consistent with the types of problems outlined in the examples of the Plastics Industry Application Paper (IC 94-1) with respect to technical content and documentation requirements.]

Original ruling & rationale: ineligible due to lack of any experimentation or analysis

[A full reading of the case and some comments made by the taxpayer to the judge help to illustrate additional reasons why the taxpayer was unsuccessful however, the major implication to claimants is that the existence of a technical patent does not automatically indicate the existence of eligible SR&ED.

Probably the most important lesson for SR&ED claimants is that we should be able to illustrate analysis as to the rationale for the results discovered so that the principles can be systematically added to the company's existing knowledge base.

Taxpayer appealed and won: primary engineer died prior to trial

The taxpayer, unhappy with the Tax Court of Canada's decision elected to bring the issue forth to the Federal Court of Appeal.

As a background to his decision, the Federal court judge provided an overview of the role of the scientists in determining SR&ED eligibility stating,

"What constitutes scientific research for the purposes of the Act is either a question of law or a question of mixed law and **fact to be determined by the Tax Court of Canada, not expert witnesses**, as is too frequently assumed by counsel for both taxpayers and the Minister. An expert may assist the court in evaluating technical evidence and seek to persuade it that the research objective did or could not lead to a technological advancement. But, at the end of the day, the **expert's role is limited to providing the court with a set of prescription glasses through which technical information can be viewed** before being analyzed and weighed by the trial judge."

It should be emphasized that the **taxpayer won on appeal** due to the fact that the **primary engineer had died** prior to the trial, the remaining business partner was in poor health and in therefore, in the judge's opinion,

"…If, however, a taxpayer has a plausible explanation for the failure to adduce such evidence, it is still open to the court to hold that, on a balance of probabilities, systematic research was undertaken."

Comments and author's opinion:

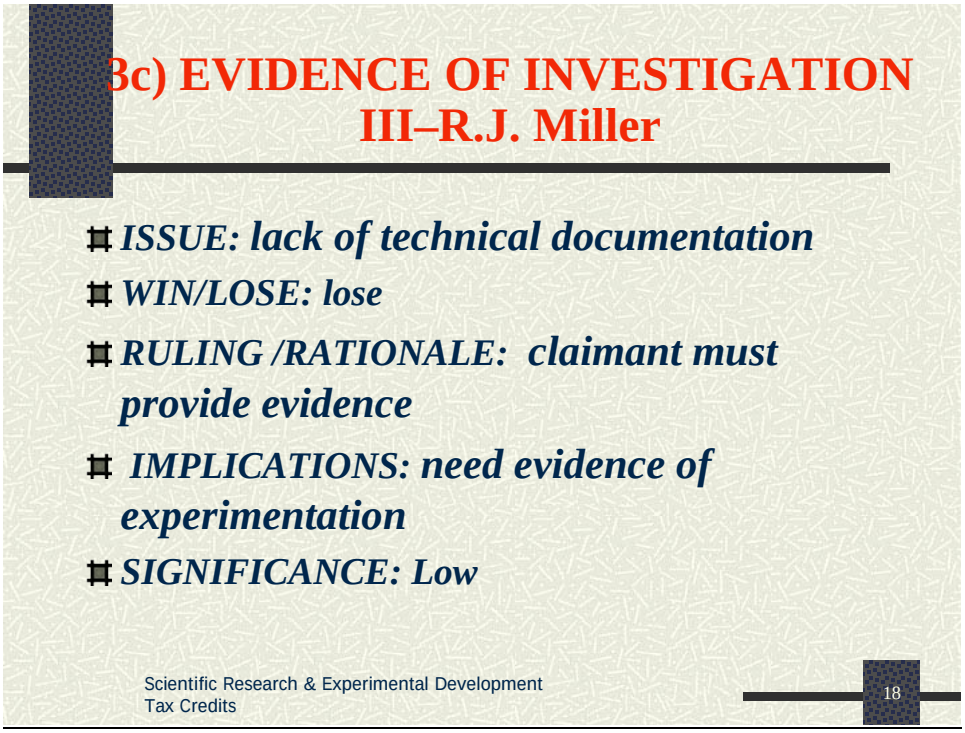
Given that,

1. this case represents one of the few SR&ED cases that carried through to the appeal level, as well as the fact that,

2. both the original case and the appeal provide specific examples and insights as to the adequacy of varying types and amounts of technical information,

in the author's opinion, both cases are likely of long-term significance.

III.3.3 R.J. Miller[29] – lack of technical documentation



Facts: SR&ED work denied without comprehensive explanation

The Corporation's research included two projects for the years in question: (a) the Custom Stock (1993 and 1994) and (b) the Receiver-Trigger (1994).

Mr. Miller, a skilled shooter, formulated in his mind what he wanted in a custom shotgun. He hired Weber, a gunsmith, to carry out his technical innovations. Together they created the Custom Stock. In the same manner the Corporation developed a technologically advanced Receiver-Trigger and Recoil system. All were eventually incorporated in a custom shotgun for which the Corporation has secured a patent in Canada and the U.S.

The CRA science auditor concluded that the work on the Custom Stock met all the above requirements however, the work on the Receiver-Trigger did not qualify since there was no technical advancement or technological uncertainty. This opinion was offered without a comprehensive analysis.

Issues: Qualifications of science auditor

The core issue concerned the determination of which development activities would be eligible. One of the taxpayer's main arguments was that the auditor was not sufficiently qualified to evaluate the work in question.

Legislation & analysis:

With respect to the technical backgrounds of the parties in question, the judge noted:

[29] *R.J. MILLER & ASSOCIATES (1986) LTD. V. THE QUEEN, Date: 2001 0 102 Docket: 97-1632-IT-G; 97-1633-IT-G*

> "The evidence of Weber, while an impressive gunsmith, was limited to producing shotgun parts designed and directed by Miller. Weber is a skilled craftsman and has his own shop. He was not the inventor and driving force behind the creation of the custom shotgun nor was he called on to give expert testimony."
>
> "The CRA's expert, was a highly qualified mineralogist but he did not have experience with competition shotguns. It is the position of the expert witness to provide a comprehensive analysis of the matter that would permit the court to arrive at an opinion. No such analysis was given."

Ruling & rationale: claimant must provide evidence

The judge examined the SR&ED eligibility issues established in the case of Northwest Hydraulic Consultants v. the Queen and stated,

> "It is clear that an Appellant has the burden of proof to show that the Minister's assumptions are incorrect. Usually in situations dealing with a specialized and technical area, the Court looks to be instructed by experts. In this case the use of experts was badly lacking on both sides."

As a result the judge looked to the evidence provided during the trial specifically,

In June of 1993 the first shotgun was examined for fitting. The prototype was in service by August of 1993. It worked from the first firing and did not require a single modification since the initial installation. In the words of the gunsmith,

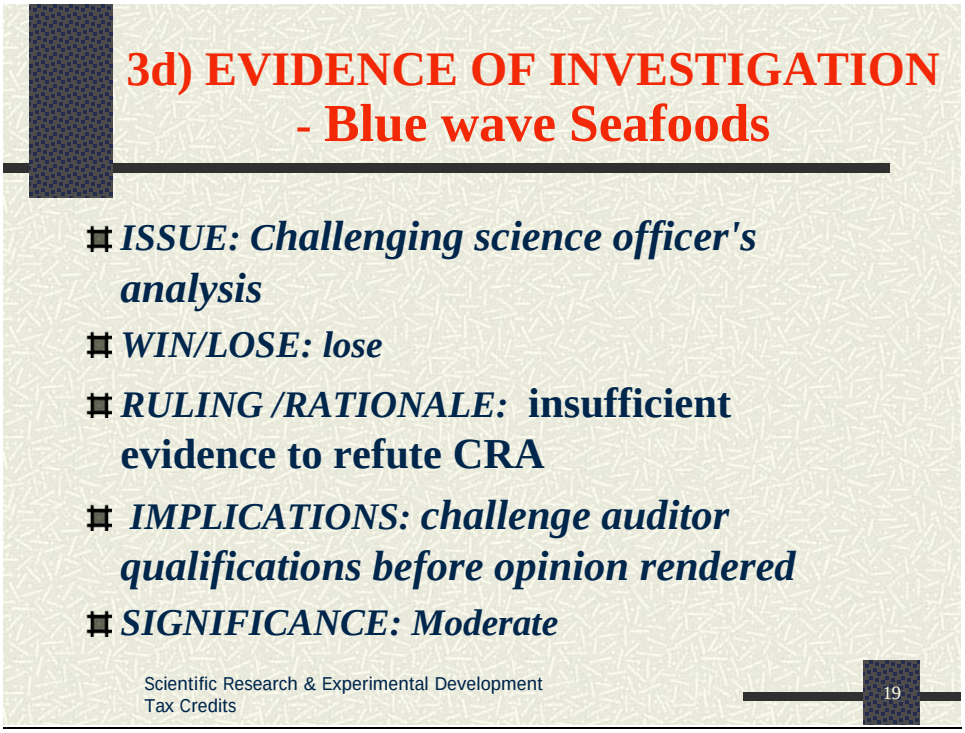
> "We started with one gun. I look at the parts, I designed the piece; I built it and tested it**. It worked from the first go**. No changes were required." (emphasis added)

As a result, the judge concluded that the technical uncertainty criterion was not satisfied and the case dismissed.

Implications and author's commentary:

In the author's opinion, this case reiterates the importance of correlating any SR&ED activities to one or more specific, technical uncertainties. Given the taxpayer could not illustrate system uncertainty as to, "which of several alternatives: i.e. paths, routes, approaches, equipment configurations, ….etc. would meet the desired specifications," the judge had no choice but to deny the admissibility of this work

III.3.4 Blue wave Seafoods[30] - challenging science officer's analysis



Facts:

The company filed a claim for SR&ED tax credits but was denied on the basis of technical eligibility by the CRA Science Officer (Mr. Neil). At the appeals stage, another the CRA Science Officer (Belinda Hatton) made some adjustments in the Appellants' favour to the audit calculations however no changes were made to the evaluations in Mr. Neil's SRED science report.

Over the process of the science review and appeal the company had provided 580 documents to the CRA Science Officer (Ms. Hatton). Despite this fact they claimed that "all overtures for examination of the CRA Science Officer had been denied," and the court action became necessary to discover information about the CRA appeals because no one other than (Ms. Hatton) appeared to have this information.

Issue(s): challenging science officer's analysis

The company argued that in order to demonstrate that the CRA appeals conducted by Ms. Hatton came to the wrong conclusion they must also discover what information Ms. Hatton considered to determine if they were granted fair and comprehensive consideration after their initial objection to the assessments.

[30] *Blue Wave Seafoods Incorporated and D'Eon Fisheries Limited and Her Majesty the Queen (TCC informal procedure – Docket: 2001-2140(IT)G)*

Relevant legislation

Subsection 93(3) of the Rules[31] reads as follows:

> "The Crown, when it is the party to be examined, shall select a knowledgeable officer, servant or employee, nominated by the Deputy Attorney General of Canada, to be examined on behalf of that party, **but if the examining party is not satisfied with that person, the examining party may apply to the Court to name some other person**."

In his analysis the judge clarified that,

> "The rule clearly requires that the Crown shall select one knowledgeable officer," and in his opinion, "two knowledgeable officers were made available to answer questions with respect to a science and a financial component. The discovery process was never intended to have the Crown provide three or four witnesses …. Discoveries are obviously a very useful procedure but at some point, a line must be drawn."

Based on these facts the judge remarked,

> "it was open to the Appellants to examine Mr. Neil and Mr. Harnish (the other CRA officers) on the 580 documents previously provided in relation to Ms. Hatton's involvement and request undertakings when required."

Ruling & rationale: better to challenge auditor qualifications before opinion rendered

The company's counsel acknowledges that this was not done but is not a requirement in section 93.

As a result the judge concluded that,

> "the Appellants have to be proactive in discovery and ask for undertakings. They did not. Only after receiving unsatisfactory undertakings is a similar application appropriate… The examiner cannot presume that any or all of the officials of The Canada Revenue Agency can be examined."

Implications and author's commentary

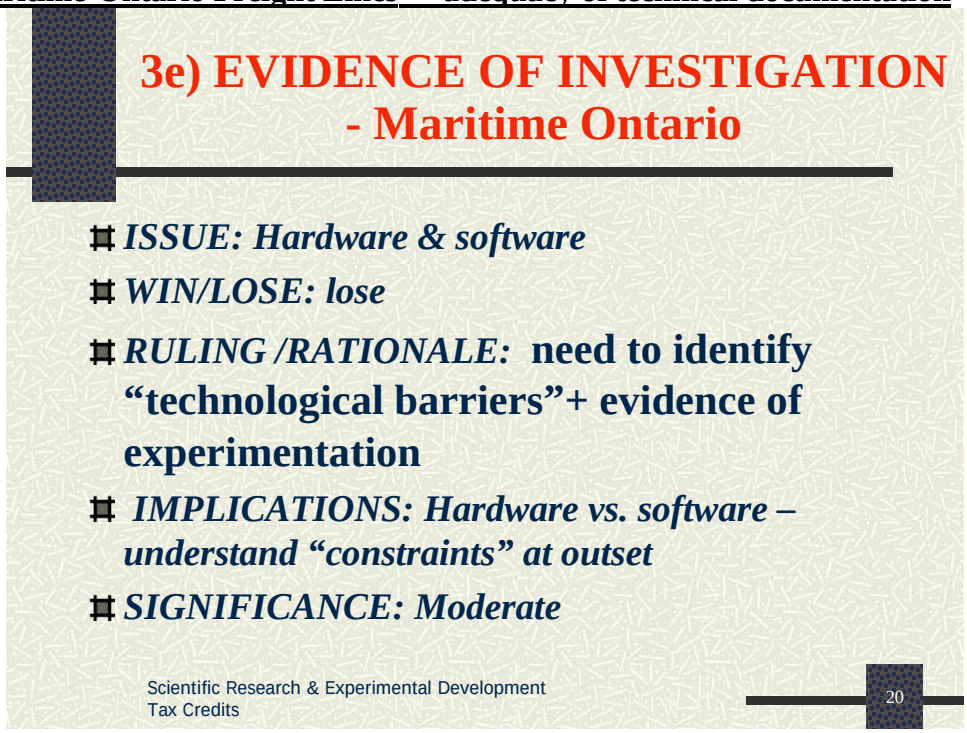
The judges comments underline **the importance of evaluating the credentials of the science reviewer before any opinions are made** since the courts seem cynical of challenges made "after" a negative opinion is received.

The case also outlines that the company should have made greater attempts to obtain the required representations through their appointed CRA representative, rather than any specific CRA representative. As a result we believe that the results of this case are of considerable long-term significance.

Furthermore, in the author's experience this is an isolated occurrence and in typical situations where claims are denied, a detailed science report is available to provide the required explanations to the claimants.

[31] *Tax Court of Canada Rules (General Procedure)*

III.3.5 Maritime-Ontario Freight Lines[32] - adequacy of technical documentation



Facts:

In computing income for it 1996 taxation year the company SR&ED expenditures and the related investment tax credit (ITC) in the amounts of $54,188 and $10,838, respectively.

The work in question was performed by Mr. Jurca, an engineer, completed courses at an electro-technical college in Zagreb, Croatia, and subsequently took industrial engineering courses in Toronto. His mandate when retained by the Appellant in 1995 was to "design and to come up with the weight measuring system that would be more accurate than we had prior to that year, basically, the improvement of the existing system".

The stated **project objective** was, "... to design the system to register 1% of applied loads. So, in other words, if I would pick up 1,000 pounds, 1% of the applied load would be 10 - 10 pounds."

The claim stated that, "the **technological uncertainties were both mechanical and software** and that he intended to look at... possibilities to improve my hardware on this side, maybe better amplifiers that are different technology or a change in the software as well."

The CRA Science officer referred to the failure by the Appellant to **identify what technological barriers had to be overcome** and stated that, "unless there was some evidence as to what these barriers were and what was done to deal with them, it was not possible to conclude that there existed a type of uncertainty that could not be resolved by routine engineering procedure."

Although the Appellant listed a number of factors which could affect the weighing accuracy, none of the documents submitted indicated the formulation of any hypothesis. As well, the CRA also noted that none of the documents before the Court indicated that a procedure in accordance with established scientific methods was employed since **no test data and/or analysis was presented** for review and only general statements had been made.

[32] *Maritime-Ontario Freight Lines Limited and Her Majesty the Queen (CITATION:2003 TCC 674) – informal procedure*

Issue(s): adequacy of technical documentation

The CRA Science Reviewer testified that on the basis of the material submitted and Mr. Jurca's testimony, it was difficult if not nearly impossible to determine whether there was a technological uncertainty.

He said there could have been, however, the only evidence of uncertainty presented was the vague commitment on the part of the Appellant to improve the accuracy of the weighing function. This failure was compounded by a serious **lack of documentation to establish what specific activity was undertaken to reduce or eliminate the factors identified** by Mr. Jurca to have affected the accuracy of the device.

Relevant legislation

The judge made **reference to several landmark SR&ED cases including C.W. Agencies Inc. v. The Queen, Northwest Hydraulic Consultants Limited v. The Queen, and RIS-Christie v. The Queen**.

These cases developed and **outlined five criteria which the judge cited as useful in determining whether a particular activity constitutes SR & ED** The criteria are as follows:

1. Was there a **technological risk or uncertainty** which could not be removed by routine engineering or standard procedures?

2. Did the person claiming to be doing SR & ED **formulate hypotheses** specifically aimed at reducing or eliminating that technological uncertainty?

3. Did the **procedure adopted accord with** the total discipline of the scientific method including the formulation **testing and modification of hypotheses**?

4. Did the process result in a **technological advancement**?

5. Was a detailed **record of the hypotheses tested, and results kept** as the work progressed?

Finally, this case then went on to define,

> "**A hypothesis is a tentative assumption or explanation to an unknown problem** and, as a rule, this requirement is met by the existence of a logical plan devised to observe and resolve the hypothetical problem."

Ruling & rationale: should illustrate methods utilized and results obtained – if none – no claim

The judge concluded that an acceptable minimum level of documentation be one which illustrates the methods utilized and the results obtained so that these can be duplicated independently by a reasonable third party.

In the judges opinion since,

> " there are virtually **no documents** before the Court which *provide any comprehensible evidence of the nature of the experimentation carried out* ... the evidence before me fails to establish that the Appellant's project meets the criteria set out in the SR & ED regulations … appeal dismissed."

Implications and author's commentary

This is yet another case in which the science officer must make a judgment to assesses the taxpayers solution to a problem represented

i) experimentation or analysis, or

ii) an attempt to claim inflated cost allocations.

The CRA science officer will generally assess the reasonableness of the costs being claimed through an examination of the related experimentation performed. We have found that the CRA staff are willing to accept virtually any form of evidence[33] as long as it correlates with the attempted resolution of the stated "hypotheses."

On the other side of this equation, where there is "no" evidence of any experimentation or analysis of alternatives, it will be impossible to justify that "any" costs are attributable.

[33] *evidence could include photos, emails, notes written on napkins and even in foreign languages!*

IV SR&ED cases regarding Financial issues

SR&ED cases regarding Financial issues

TOPICAL AREA	APPELLANT	PRIMARY ISSUE	WIN - LOSE - DRAW?	RULING & RATIONALE	IMPLICATIONS: UNRESOLVED ISSUES AND OPPORTUNITIES	LONG-TERM SIGNIFICANCE
1) a) WAGES	Alcatel	stock options - whether SR&ED "cost" incurred	Win - round 1	SR&ED "cost" is dilution of shareholder interest	Courts contemplate "costs" not in taxable income	High
			Draw - round 2	legislation to disallow > Nov. 14, 2005	2 year window to amend 2004 - 2005 taxation years	High
b)	CDD-REM	payments to "specified employees"	Win - round 1	eligible based on "evidence"	courts allow reasonable estimate of costs incurred	Low
			Draw - round 2	Subsequent events: "non-arm's length" payments	post 1996 - only "salary & wages" allowed "NAL parties"	
c)	Synchrosat	allocating salary to only SR&ED activities	Lose	only SR&ED percentage claimable	need system to document employee experimenation time	Low
d)	Ergorecherche	time allocation - SR&ED vs. non-SR&ED projects	Lose	"reasonable" basis for allocation required	could structure "non-SR&ED" done during unpaid time	Moderate
2) MATERIALS	Consoltex	materials used in SR&ED then sold	Win - round 1	eligible if required for SR&ED	short-lived precedent to include "commercial materials"	Low
			Draw - round 2	Subsequent legislation repayment of ITC's on sale	Clarification: labour eligible - materials "sold" excluded	High
3) a) CAPITAL	Dew Engineering	building vs. "other structure"	Win	temporary lab not a "building" - no fixed foundation	courts take literal interpretation of "building"	Moderate
b)	Aurora Marine	eligibility of Yacht expenses for SR&ED	Win	SR&ED eligible even if not otherwise tax deductible	courts took liberal interpretation of "SR&ED costs incurred"	Low
c)	Waxman	whether cattle eligible SR&ED	Win	eligible if ASA (>90%) SR&ED intent	short-lived precedent to include "commercial materials"	Low
			Draw - round 2	Subsequent events: repayment of ITC's on sale	eligible if SR&ED intent - repayment if sold	High
4) a) ASSISTANCE/ GRANTS/	Com Dev Ltd.	government fees - "assistance" or	Win	fixed price contract not purchase of SR&ED	Structure SR&ED contracts-"taxpayer" to bear "risks"	High
b) SALE OF PRODUCT	Les Cultures	sale of experimental production	Win	subsequent sale irrelevant if SR&ED performed	clarifies SR&ED labour eligible despite subequent sale	High
5) UNPAID AMOUNTS	Chartwell	eligibility of unpaid amounts / bad	Win / lose	need to claim costs during the year incurred	opportunity to claim unpaid wages (*unless forgiven)	High
6) a) FOREIGN EXPENSES	Data Kinetics Ltd.	foreign "mainframe" costs Canadian SR&ED?	Win	attributable to SR&ED if researcher "in Canada"	definition of "in Canada" issue of contention .	Moderate
			Draw - round 2	Subsequent events: only payments to "taxable suppliers"	subcontractor BN# now required to claim payment	High
b)	LGL	data collection outside Canada SR&ED?	Lose	ineligible if physically outside Canada	courts took literal interpretation of "in Canada"	Moderate
			Draw - round 2	Subsequent events: eligible if within "EEZ"	marine work eligible to 200 nauts - still "unclear" travel abroad if >10%	Low
7) "ASA"	Quantetics	"costs" or "revenues" basis for ASA	Lose	SR&ED costs basis for eligibility	Preferential ITC's "sole purpose performers" gone 1992	Moderate
8) a) FILING EXTENSIONS	Datacalc	extension of 18 month filing	Lose	qualified expenditures - identified by filing due	object under proper sections of ITA - see Alex Parallel	Low
b)	Alex Parallel Computers	basis for extension of filing deadline	Win	CRA cannot restrict Minister's power to extend deadlines	extension for reasons other than CRA IC (illness/disasters)	High
			Draw - round 2	Legislation - Nov. 17, 2005 restriction of	must file within 18 months of year end - preferably 15	High
9) a) QUALIFIED CCPC STATUS	Mimetex	if US director with 50% of shares	Lose	actions of US director w/o consent of Canadian	consent from 1 of 2 Canadian directors solves problem	High
b)	HSC Research	Factors in evaluating defacto control	Win	separate directors - no control evidenced	Landmark case on definition of "defacto control"	High
c)	Terra Remote	Is shareholder with < 50% ownership arm's length?	Win	Analysis of ITA 256 (control) & 251 (related persons)	Confusing "specified employee" (>10%) with "arm's length"	High
d)	All Colour Chemicals	Can CCPC partners claim 35% refundable ITC's	Lose	ITA 127(8) for partnership "over-rides" 127(10.1) refunds	Qualified CCPC's should avoid using SR&ED partnerships	High
10) ITC USE	Ainsworth Lumber	ordering of ITC use - refundable vs. non-refundable	Win	Act clarifies that taxpayer "may" deduct [credits] indicates that taxpayer elects order of refundable vs. non-refundable credits	right to order affairs to minimize taxes	Moderate

IV.1 R&D WAGES

IV.1.1 Alcatel[34] – SR&ED eligibility of stock options

Facts: stock options exercised

The corporation formerly known as Newbridge Networks Corporation, engaged in ("SRED") in Canada and maintained an employee stock option program.

In calculating its 1994 SRED expenditures the corporation included the value of stock option benefits derived by those employees who were directly engaged in the prosecution of SRED in the amount of $23,344,318 and claimed investment tax credits ("ITC's") of $4,668,864 with respect to the stock option benefits.

The company did not record the amount in issue as an expense on its income statement for the 1994 (or any preceding) taxation year and its financial statements reflected only the increase in the number of shares and share capital equal to the aggregate of the exercise price of all the shares acquired under the program (plus the corresponding increase in cash).

The Canada Revenue Agency (CRA) disallowed the ITC claim on the basis that the stock option benefits derived by the employees of the Appellant were not "expenditures incurred".

[34] *ALCATEL CANADA INC., v. THE QUEEN, February 24, 2005, Docket: 2003-748(IT)G, (TCC)*

Issue(s): whether eligible SR&ED expense

The main issue is whether the benefits conferred on the employees by way of stock option constituted "... expenditures made in respect of an expense incurred in the year for salary or wages ..."[35].

Relevant legislation and analysis:

The CRA argued that,
1) in allowing its employees to buy shares for less than market value as contemplated by the option program, they conferred a benefit on them without making any outlay and therefore did so without making any expenditure. The premise on which this argument rests is that legislation which requires that an expenditure be made can be satisfied only by making an outlay or payment. Because the Appellant made no outlay it therefore made no "expenditure."[36]

2) Secondly, the CRA argued, the transactions whereby the employees were permitted to acquire shares at less than market value related not to the "income" earning process but rather to the share "capital" structure. The outlays, if any, were therefore not "expenditures of a current nature made by the taxpayer"[37].

The judge also noted,

"stock option benefits fall within the meaning of salary or wages." [38]

Ruling & rationale: qualified SR&ED expense

In the judge's view,

"It is hard to see how salary or wages can flow from employer to employee without expenditure on the part of the employer….

The CRA's argument also fails to recognize that a very real expenditure is accomplished when shares having an established market value are sold for less than that value in the context of a scheme for the compensation of the employees who buy them. … The expenditure consists of the consideration which the Appellant foregoes when it issues its shares for less than market value."

The judge further commented,

"The encouragement of scientific research which is the object of the legislation would be greatly diminished by the adoption of the narrow construction for which the CRA contends."

Implications and author's commentary

To the author's knowledge this is the first significant case giving direction on potential treatment of stock option compensation and also illustrates that the courts are willing **to consider the "substance" of a transaction regardless of how they are reflected in the financial statements.**

An issue that was not addressed in the case is the fact that the income inclusion for the employee may be several years after the SR&ED is performed. This and several other issues were subsequently addressed by the CRA (see next section).

[35] *within the meaning of subclause 37(8)(a)(ii)(B)(IV) of the Act*
[36] *as required by subclause 37(8)(a)(ii)(B)(IV)*
[37] *within paragraph 37(1)(a) of the Act*
[38] *salary or wages as defined in section 248 of the Act*

Subsequent events – Department of Finance proposal to disallow > Nov. 14, 2005

On November 14, 2005 government notes proposed legislation that would prevent salary and wages incurred as a result of stock options to no longer be qualified SR&ED expenditures. In the author's opinion this is a great illustration of an instance where the courts interpretation of the legislation may have been inconsistent with the intentions of the parliament and the Department of Finance and as a result the laws are amended.

IV.1.2 CDD-REM[39] - Payments to "specified employees"

Facts: no invoice for payment(s)

The case dealt with a lack of documentary evidence for SR&ED payments that were originally claimed as SR&ED wages, but upon audit, were found to be undocumented payments to the companies of the controlling shareholders.

During its 1993 and 1994 taxation years, the corporation made payments to other corporations, that were also shareholders, claiming that the SR&ED portions of these payments were 25% and 35%, respectively.

Issue(s): Documentation required to support SR&ED?

1) The main issue concerned whether the amounts without direct invoice documentation were in fact, "on account of SR&ED."

2) A secondary issue was whether the companies operated at "arm's length."

Relevant legislation & analysis

The CRA representative referred to ITA subsection 127(9) and argued that,

- The workers, the two shareholders, were not paid for R&D.
- There was no evidence that the amounts claimed were related to the services which they provided for the Appellant.
- They were not operating at arm's length from the Payor.

[39] *CDD-REM Process, Vacuum Technology Corporation v. The Queen - 2000/11/ 28, Docket: 1999 – 4891 (IT) I, (TCC – informal procedure)*

- There was no evidence of the liability of the company, the Appellant, to pay the amounts which are sought to be deducted here, to the two alleged recipients."

Based on these facts, the CRA argued that,

> "the information on the T4s [slip]… was the most accurate method to be used," since "this was a non-arm's length situation"[40].

Ruling & rationale: eligible based on "evidence"

Issue 1 – SR&ED payment eligibility without invoice documentation

The Court found,

> "the methodology used by the auditor in this particular case was probably dictated by the fact that he was unable to find the paper trail that he was looking for. Indeed in some situations that might have been fatal to the Appellant's case.
>
> A paper trail including the use of invoices, which are accurate and issued at proper times showing that the work was done, what the charges were for, how much work was done and how much was paid, is a better way of doing it. However, the Court is satisfied, on the basis of the evidence heard, that that is not a fatal omission in this particular case to the Appellant's position."

The analysis then focused on the issue of whether the company in fact made the payments on account of R&D? **Based on the credibility of the witnesses and other documents submitted the court was satisfied** that the amounts, "were also paid out by the Appellant company **on account of R&D."**

Issue 2- Arm's length status

Despite references to specific legislative support, the court found,

> "that at the end of the day these **companies were operating at arm's length** from each other. They were not operating at non-arm's length under the Act nor were they operating at non-arm's length in fact."

Implications and author's commentary

Issue 1 – SR&ED payment eligibility without invoice documentation

Though the judge provided the taxpayer with the desired relief, he clarified that;

> "***Without the viva voce evidence of the persons who testified***, in the ***absence of the proper paper trail,*** this result could not have been reached. ***If the Court did not believe*** what these ***witnesses*** had to say, this result ***could not be reached***."

In the author's opinion this case underlines the importance of continual vigilance regarding the ongoing documentation required to support any SR&ED contract amounts.

The specific facts of this case may be less relevant subsequent to 1996 when new legislation[41] was passed to prohibit these and most other "non-salary" payments to "specified employees."[42]

[40] under paragraph 251.1(b) of the Act
[41] *restrictions on specified employees per ITA subsections 37(9) &(9.1)*
[42] *"specified employee" defined per ITA subsection 248(1)*

This case does underline some of the confusing issues with respect to the eligibility of SR&ED salaries. As a result we have provided a "summary " of these rules in the "SR&ED strategies" section of this newsletter.

Issue 2- Arm's length status

In the author's opinion, since the parties in question were not related, nor did either "control"[43] the corporation individually, it is clear that the judge was correct in establishing that the parties were dealing at "arm's length."

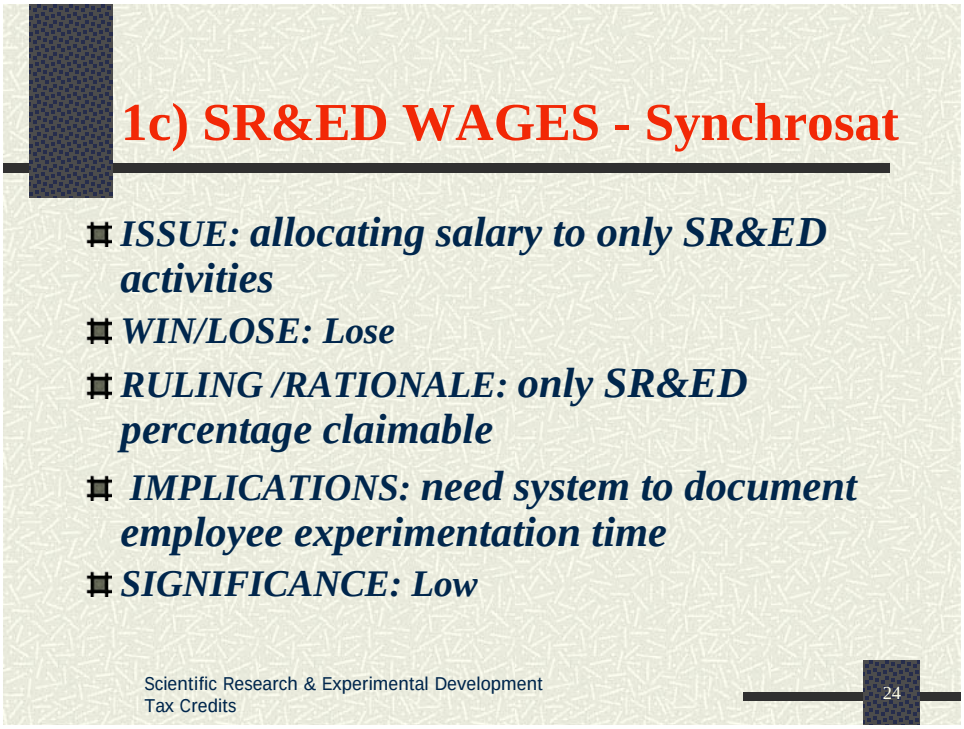
In general the main planning issue is to try to ensure;

- "specified employees" (>10% ownership) generally &
- "owner managers" (>50% ownership) always

try to remunerate themselves by way of "salary or wages" (i.e. T-4 slip).

[43] *As defined in ITA subsection 256(1.2)*

IV.1.3 Synchrosat - allocating salary to only SR&ED activities[44]



Facts:

When the company filed its claim it was under the impression that all the activities gave rise to eligible expenditures. An audit was subsequently performed by the Canada Customs and Revenue Agency ("CRA") and the project was split into four sets of activities. It was only during the audit that the appellant conceded that Activity "A" alone qualified as an eligible SR & ED activity. This represented only about 25% of his total time he spent in carrying out all four activities.

The company submitted that, during the entire 2001 taxation year, the scientist [Dr. Sen] worked as a full-time employee of Synchrosat Limited working more than 40 hours a week to undertake four separate activities, but he charged for only 540 man-hours of his time to the company for all his work performed during the year (i.e. the time for eligible SR&ED Activity A). The CRA proposed that calculation of the total salary of the Appellant's shareholder related to eligible SR&ED activity is $29,299 x 25% = $7,324.66.

Issue: allocating salary to only SR&ED activities

Whether the entire salary paid during the year (in the amount of $28,080) was attributable only to that one eligible activity.

Ruling & rationale: only SR&ED percentage claimable

[44] *Synchrosat Limited v. The Queen (2003TCC380)*

When the appellant filed its claim for SR&ED it declared that work was a combination of the four activities listed. It was only during the audit that the appellant conceded that Activity "A" alone qualified as an eligible SR & ED activity.

Therefore, the judge did,

> "not believe that the amount of $28,080 that Dr. Sen charged the appellant was attributable only to that one eligible activity."

Furthermore, Dr. Sen admitted that the appellant could not afford to pay him a higher salary for all of the work he did in 2001.

Therefore, the judge concluded that,

> "the appellant had the burden of showing that Dr. Sen charged it only for the work done on the eligible activity. Dr. Sen did not file a breakdown of the time he spent on each activity in the appellant's project. The evidence before me is insufficient to refute the allegations of fact stated in the Reply."

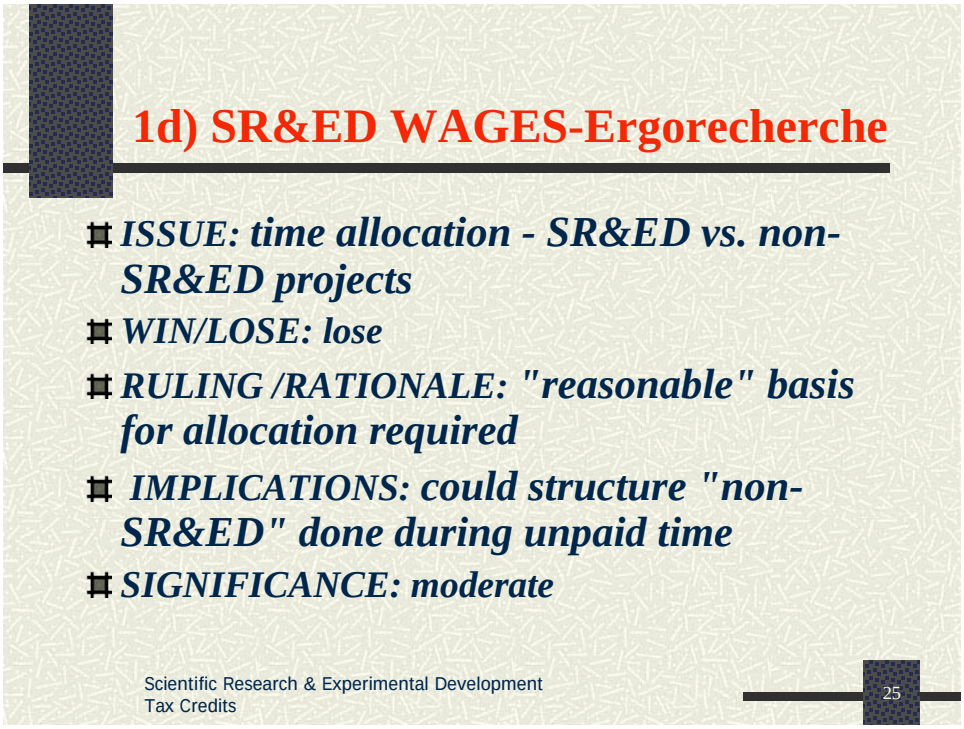
and as a result only 25 per cent of the salary earned in 2001 qualified as an SR & ED expenditure.

Implications and author's commentary

In the author's opinion this case illustrates **not only a pitfall but also a series of potential opportunities** for structuring SR&ED remuneration.

These concepts are **illustrated further in the case study entitled "Ergorecherche."**

IV.1.4 Ergorecherche[45] – aggressive allocation of time to SR&ED vs. non-SR&ED projects



Facts

This case examined what methods are appropriate for allocation of salary wages to SR&ED work performed. The taxpayer performed 6 eligible SR&ED projects during the year. The taxpayer claimed costs for only the first three projects since it received contract payments related to the work performed on the latter three. These latter three "unclaimed" projects accounted for almost 70 percent to of the total time spent by two specified employees. Each of the employees in question had documented over 3,000 total hours of time being spent on the six projects.

The taxpayer, on preparing the claim, attempted to allocate all salaries paid to the specified employees to be fully attributable to only the 3 projects claimed. The Canada Revenue Agency proposed to reassess the taxpayer by allocating labour costs to the projects based on actual time spent. The taxpayer referred to judgments in such cases as Stubart Investments Ltd. v. the Queen [1984] and to Lord Tomlin's dictim, established in the famous case of Inland Revenue Commissioners v. Duke of Westminster [1936] that, "Every man is entitled if he can to order his affairs so as that the tax attaching under the appropriate Acts is less than it otherwise would be."

Summary in analysis of main issue

This case supports The Canada Revenue Agency's assessment policies outlined in application policy paper 96 -- 06 (reproduced in Appendix F of this guide). In the author's opinion, the judge's conclusion was justified based on the particular set of facts however, this case underlines the extreme importance of having the ability to allocate salary and wages accordingly.

Ruling and rationale: "reasonable" basis for allocation required

Unfortunately for the taxpayer, the judge did not concur with this point of view. The judge referred to the definition of a "qualified expenditure" in subsection 127(9) of the income tax act. This legislation requires the qualified

[45] *Ergorecherche et Conseils Inc. v. The Queen (CTC [1997] CarswellNat 2615)*

expenditure be incurred in the year in respect of SR&ED. Based on this definition the judge concluded that,

> "Since the shareholder-employees' salaries were determined on the basis of the appellant's liquid assets, if the appellant wishes to include them in calculating SR&ED expenditures it must suggest a rational method for connecting their salaries with SR&ED. There is no room for discretion here, nor is it question of applying the principal of freely ordering ones affairs accepted in Stubart. It is simply a matter of applying the act.

Authors commentary and related planning methodology

In the author's opinion, the taxpayer's main problem was the arbitrariness of their allocations. The judge did not state that alternate allocations would not be accepted however, these allocations must, "suggest a rational method for connecting their salaries with SR&ED."

The author proposes that had the allocations been "reasonable" they may have been accepted by the Tax Court and perhaps even the original auditor. In this case a reasonable allocation may have differentiated the time spent on eligible R&D as a percentage of what full-time employment hours would be expected from a typical employee.

In this example both taxpayers spent over 3000 hours on the various projects during the year. In the authors opinion, had the taxpayer been able to establish, perhaps through employment contracts of other employees, that a typical employee would be expected to work 1880 hours per year they may use this as a basis to allocate R&D vs. non-R&D time.

In the author's opinion, had the taxpayers allocated their eligible R&D time over a standard work (1,800 hours) year rather than the total hours actually spent (>3,000 hours), its appeal might have been far more credible since a "reasonable allocation basis" would then have been proposed.

Support for such basis of allocation would be more easily justified. The fact that many shareholder employees spend greater amounts of time at work than non-shareholder employees is a relevant factor in this case. It is the author's view that if shareholder employees can document that their employment duties are expected to focus on SR&ED they should not be penalized if they come in after hours or on weekends to perform non-SR&ED duties. In fact, this would be penalizing SR&ED employees for having an interest in their companies.

Example of potential problem & related planning with unpaid overtime

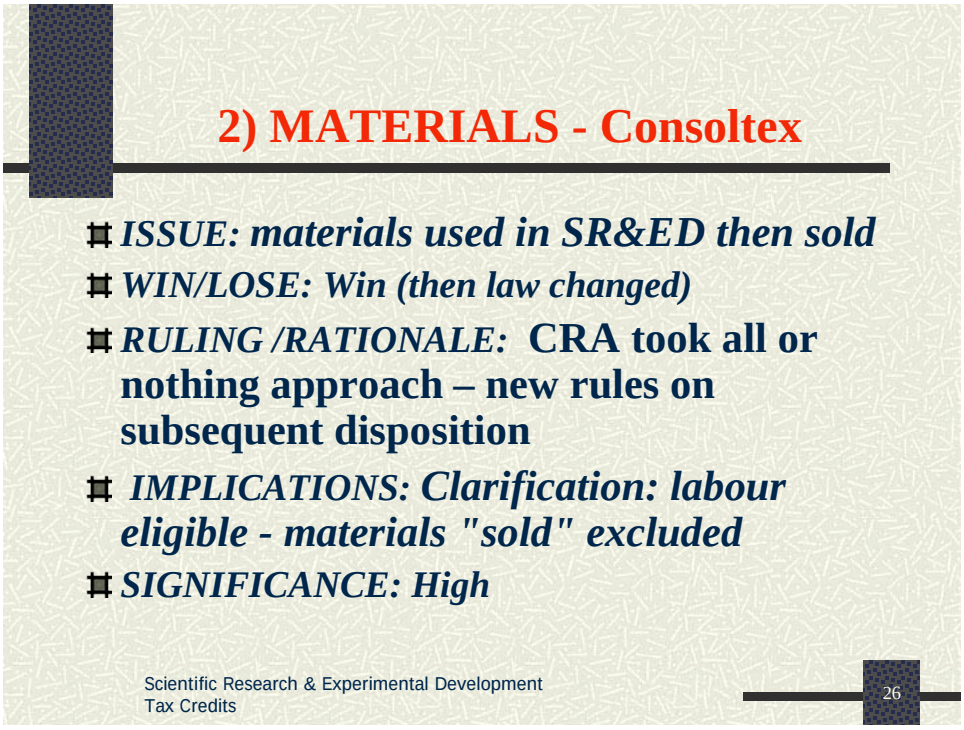
An example of the types of problems The Canada Revenue Agency's assessment policy can create is obvious if we contemplate a scenario where a company (ABC Co.) is expecting to claim research credits on one of its scientists. Let us assume that the scientist is intended to spend all of her salaried time (1800 hours) on eligible SR&ED activities. Let us further assume that during the year the scientist volunteers and spends another 400 hours after work in self development as well as training of promising upcoming technical employees.

Given The Canada Revenue Agency's stated assessment policies (application policy paper 96 – 06), they will likely try to reduce the taxpayer's claim for the time that the scientist volunteered in excess of his or her expected work hours. This may in turn create a scenario where such employees will be prevented from working overtime or developing further skills on their own behalf despite any long-term benefits that would accrue their employer. This is likely not the intent or spirit of the legislation. Fortunately, as the author has illustrated, the judgement of this case does not indicate that ABC Co. would be penalized in this manner if "reasonable" allocations of SR&ED costs were made to encompass the concept of a "full work year" as a "finite" number of hours.

The case highlights important issues relating to the need to document employment terms in addition to time spent on SR&ED, especially for specified employees. Where employment terms are vague the author would recommend drafting of employment contracts or otherwise documenting the terms of employment to use as a basis to perform "rational" allocations. Due to issues raised with respect to wage documentation, in the author's opinion, this case is of long-term significance.

IV.2 MATERIALS

IV.2.1 Consoltex[46] - Materials Consumed in SR&ED



Facts

The cost of yarn (materials as well as labour) for experimental runs (some up to 52 km) were found to be eligible even though there was a "commercial sale" of the end product.

Also of secondary interest, is the fact that despite the taxpayer already "made a deal" with The Canada Revenue Agency on the initial audit it (Consoltex) was found by the court not to be bound by any agreement with the Minister of Revenue, "with respect to the manner in which he assesses a taxpayer."

Summary and analysis of main issue:

The Canada Revenue Agency's assessment policies (particularly those outlined in SR&ED Application Policy Paper 96-07) would generally not allow the "materials" component of such expenses (to the extent they were recovered from the eventual customer), claiming that they were more in the nature of "commercial" vs. "experimental" production.

[46] *Consoltex Inc. v. The Queen (TCC 1997 ETC 148)*

Support for The Canada Revenue Agency's position appears in ITA (Income Tax Act) Regulation 2900(2)(a) which states that Materials must be "*consumed*" in the SR&ED prosecution.

Based on the large mix of concurrent commercial work with SR&ED aspects which we have witnessed in industry, we have found that The Canada Revenue Agency's delineation between commercial and experimental production (for materials only – rather than other labour and "soft" costs) appears to provide an *understandable* compromise to taxpayers in that they are credited or "reimbursed" for items wholly or partially consumed (used up) in the process (including materials for failed prototypes) but not the commercial portion of the materials to the extent that they are recovered from their eventual customers.

Ruling & rationale: eligible if required for SR&ED

The tax court judge appears to have addressed this issue clearly and directly and felt that **if** the SR&ED work using the material was eligible on a technical basis, all material costs would be included. He stated that this method of allocation was in the nature of the intent of the Income Tax Act and that,

As a consequence this case is of considerable long-term significance. Furthermore, due to the significant proportion these costs can form of the overall claim, this issue will likely be addressed quickly, and hopefully in a way that encourages SR&ED, by the Department of Finance.

Author's discussion on the "materials consumed" issue:
Much of the problem previously experienced between The Canada Revenue Agency and taxpayers as a result of the "carve-out" of costs due to the eventual sale of experimental product was largely due to the fact that this cost reduction or carve-out was applied to all SR&ED costs (i.e. labour, subcontractors, overheads, and materials) rather than strictly the material component(s). This "all or nothing" approach was used by The Canada Revenue Agency in both the 1993 Cultures LaFlamme case, which they also lost, and apparently (though the details of the case are somewhat unclear on this issue) in the Consoltex case.

This "all in" or "all out" position left the tax court judges in a precarious position. If they attempted to reduce all costs by any proceeds received, the credit would then only fund businesses that experience continual failures rather than those which developed successful products through the SR&ED process. This did not appear to be the intent of the program. Consequently, this "binary - i.e. all in or all out" decision, in our opinion, resulted in the Cultures LaFlamme and (perhaps the) Consoltex decisions and was justified (under this premise) given the wording of the Income Tax Act.

This problem was subsequently resolved by parliament by introducing new legislation on the subsequent disposition of SR&ED materials and capital.

Subsequent events: repayment of ITC's on sale of SR&ED materials

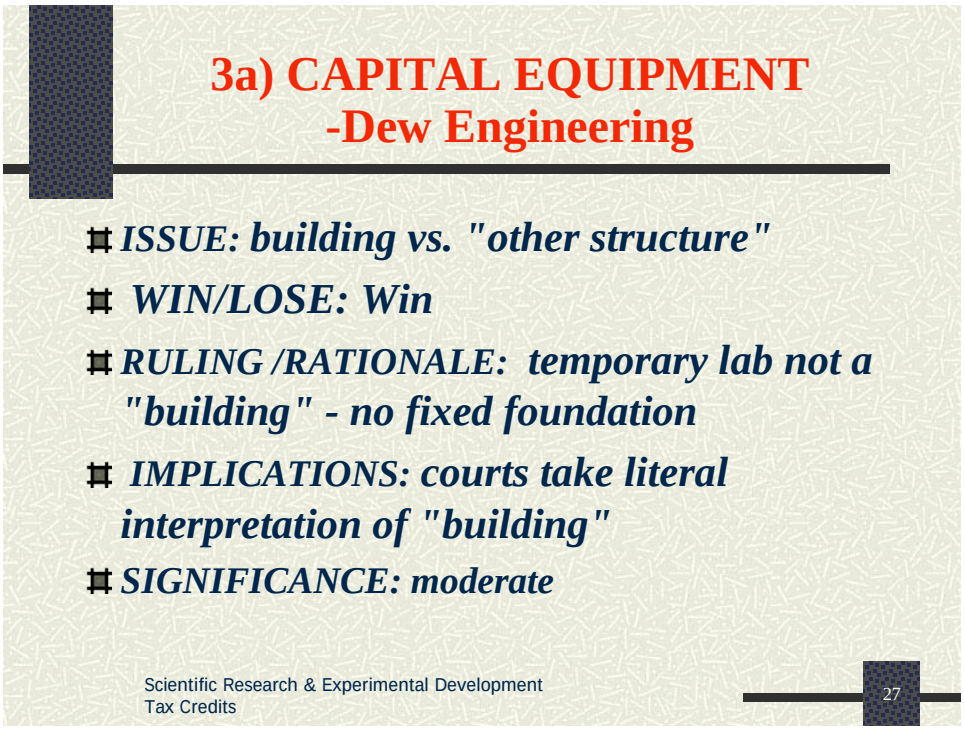
The "new" interpretation of "commercial vs. experimental" use for *materials only* appears to follow the wording of the Act in subsection 37(8) regarding "materials consumed [in the prosecution of SR&ED]."

Subsequent legislation also provides for repayment of the ITC's earned on materials to the extent that they are subsequently sold however the labour costs incurred to produce these items still remains eligible. In the author's option this differentiation between "hard" and "soft" costs appears to have provided considerable clarity to taxpayers.

While the comments in the Consoltex case are interesting, in the authors option it is yet another illustration of the department of Finance updating the legislation updating the legislation to be in conformance with the intentions of parliament.

IV.3 CAPITAL EQUIPMENT (>50% OR > 90% R&D)

IV.3.1 Dew Engineering[47] – Building vs. "other structure"



Facts & analysis:

The taxpayer in this case incurred costs to develop a temporary laboratory. Although connected to the taxpayer's plant by bolts, the lab could be disconnected and prepared to be shipped to a new location in one day. The Canada Revenue Agency attempted to deny the taxpayer any investment tax credits on these expenses on the basis that the laboratory was a "building" within the meaning of the relevant provisions of the income tax act.

The case made reference to the Supreme Court Canada decision in British Columbia Forest Products vs. MNR and also referred to The Canada Revenue Agency's IT -- 79R3. One underlying theme in both of these directives was the fact that a building envisions a construction which is intended to remain permanently in place on a permanent foundation. The judge went on to list the seven factors which he found relevant in the determination of whether the structure meets the meaning of a building as contemplated in this SR&ED legislation:

1) The lab has no foundation and is not affixed to the ground.

2) It sits on the ground like some mobile homes.

3) It is designed to be and is in fact portable.

4) It can be easily disassembled and reconstructed.

[47] *Dew Engineering and Development Ltd. vs. Queen [1996] 3 CTC 2904 (TCC)*

5) When in place, its energy needs are met by connecting to facilities of the structure to which it is appended.

6) Its cost was minimal in the general context of building costs: and

7) It life expectancy was only 20 years.

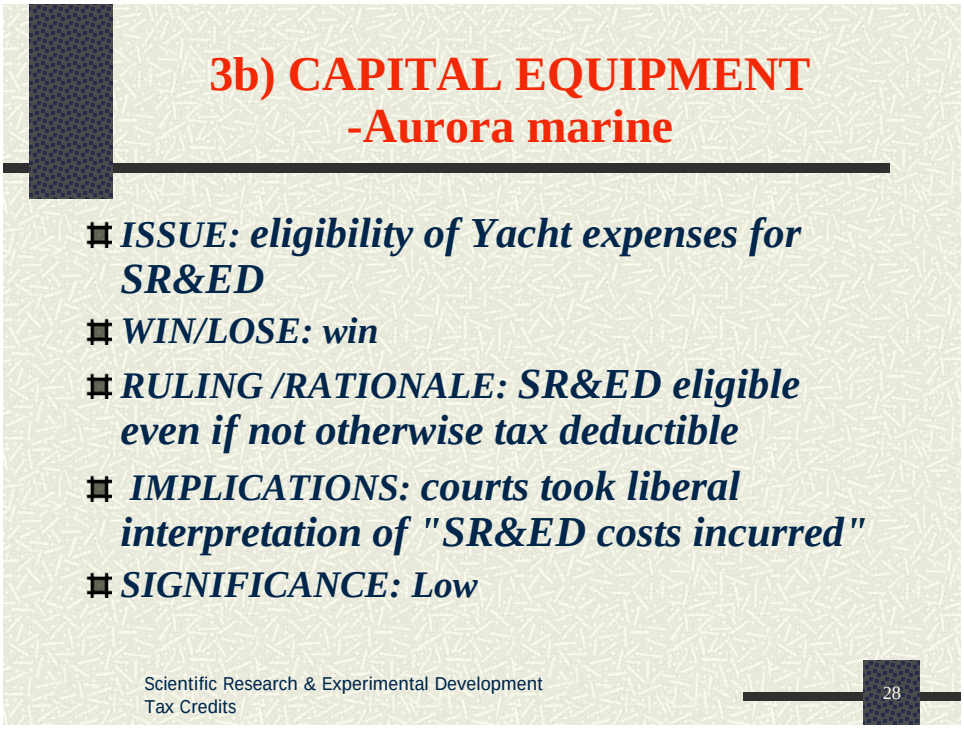
Ruling and rationale: temporary lab eligible since not a “building”

The judge found that the structure did not meet the definition of a building within the meaning prescribed in income tax act.

Authors commentary

The results of this case are likely not surprising to tax practitioners familiar with the concept of Class 6 assets. It does however, underline the importance of clearly evaluating and documenting whether a structure is in fact a building if it is to be used for SR&ED activities. As such, in the author's opinion, this case is of moderate long-term significance.

IV.3.2 Aurora Marine[48]- Eligible Yacht expenses



Facts: Yacht used 100% in SR&ED activities

The CRA, while admitting the validity of some research using a Yacht, disallowed certain expenses including the yacht's slippage and insurance.

Based on the testimony of the taxpayer, the judge was, “satisfied that the boat was used exclusively at all times for the purpose of testing the various [SR&ED] products.”

Issue: Whether certain overheads eligible?

In the author’s opinion, the key legislative question was, “what expenses would be allowed under the traditional method of overhead allocation?”

Relevant legislation & analysis

Since this case was an informal appeal it did not provide an in depth legislative analysis and as a result carries less precedence than a traditional tax court of Canada ruling.

Ruling & rationale: all relevant overheads eligible

Because the yacht was exclusively used for the research and development, the yacht's slippage and yacht insurance was allowed.

[48] *Aurora Marine Industries Inc. v. The Queen: 2000/11/ 28, Docket: 1999 – 4891 (IT) I, (TCC)*

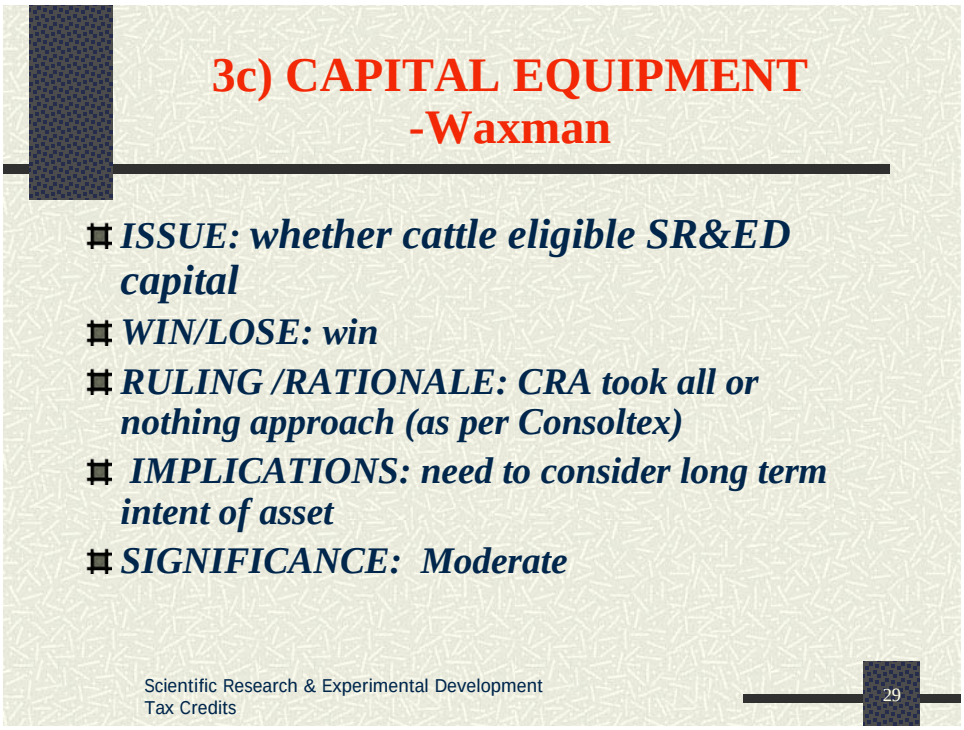
Implications and author's commentary

In the author's opinion, the judge correctly interpreted the inclusions envisioned by the legislation.[49] The case is also of interest since it further illustrates that the courts are willing allow a reasonable allocation of overhead expenditures to any SR&ED activities.

As a result, we believe that this case will be of moderate long-term significance to companies who choose the "traditional," rather than the "proxy," method of overhead allocation.

[49] *"traditional" overheads defined per ITA Regulation 2900(3)*

IV.3.3 Waxman[50] - whether cattle use in SR&ED eligible SR&ED capital



Facts:
The company, a sole-purpose R&D performer, purchased approximately 2,700 head of cattle in 1987, used them in experimentation for approximately six months and sold them (for approximately $3 million) in 1988 to slaughterhouses in the area. A loss was allegedly incurred on this disposition however, the details of this loss were not quantified in the case facts. The full cost of the cattle was claimed as an eligible SR&ED expense even though the end commercial use was arguably envisioned at the outset of the project capital.

Summary and analysis of main issue:
The *intended*, short-term ownership of a the capital asset (the cattle) to be used in SR&ED by the taxpayer during its entire term of ownership would tend to indicate that it was only the taxpayer's use of that asset rather than the assets entire commercial use and therefore scrap value which is to be examined.

The Canada Revenue Agency takes the position that Regulation 2902 requires that an SR&ED asset (namely premises, facilities or equipment which are not otherwise defined in the Act) to be,

"used during all or substantially all (ASA) (ie. greater than 90%) of its operating time .... in the expected useful life of [the asset]... for the presecution of SR&ED in Canada"

Ruling and rationale: eligible if ASA (>90%) SR&ED intent

Justification for the Tax Court's treatment of these cattle as eligible SR&ED assets could be seen as a similar fact situation as that illustrated in the Highland Foundry case which was to allow a capital asset on which substantial SR&ED was performed before its eventual commercial use as an ASA SR&ED asset. The important point to note however, is that shortly after the Highland Foundry case Regulations 2900(11) & 2902(b) came out to limit "commercial assets" for all acquired property / equipment (applicable to property acquired after December 2, 1992).

Author's opinion on SR&ED capital assets or "mixed use" prototypes:
In our opinion, as with the (1993) Highland Foundry case, the taxpayer would likely not have met the "ASA

[50] *Murray Waxman et. al v. The Queen (TCC 1997 ETC 171)*

SR&ED throughout the useful life" test if these activities had been performed after December 2, 1992. Therefore in our opinion this case along with the Highland Foundry case is of little long term significance. The case does however, bring up several other issues on the treatment of "custom designed" or mixed used (i.e. SR&ED & non-SR&ED) pieces of capital equipment. Our experience has indicated that this issue is of relevance to most SR&ED performers and therefore, we have provided additional commentary and recommendations on this issue in the next section.

Importance of prototype intent:

Any and all prototype costs should, in our opinion, be tracked including design, production and test labour, subcontractors, and materials. These costs can then be reviewed at the end of the year for inclusion or removal from the claim. The Canada Revenue Agency's opinion as to whether all or part of these costs meet the definition of eligible materials "consumed" in commercial vs. experimental productionfor the final prototype, can then be based on the specific, technical facts and issues outlined for each case. The Canada Revenue Agency provides further indicators whether the asset was really a "prototype" based on what subsequently happened so that either all costs would be eligible for SR&ED or they would constitute a "custom product."

Where "custom products" are determined to exist we will generally look for the existence of excluded work (i.e. work not directly necessary for the resolution of one or more of the stated, technical uncertainties) to remove from the otherwise eligible expenses.

Generally, where single prototypes are built, the direct design and manufacturing costs are typically all seen as necessary since you cannot design and build half a prototype. On custom machines it may be perceived that a problem could be resolved with the development and testing of only certain components. This would indicate to us that either ,

1) *no system uncertainty existed* with respect to the integration of these components with other parts of the system / machine or,
2) these technical/*system uncertainties were not properly identified* and documented by the technical personnel in the project descriptions.

If the system uncertainties can be adequately identified to include all design, manufacturing, and testing *labour and/or subcontractors* for the prototype then the remaining issue again revolves around the treatment of the "materials consumed in SR&ED."

The Canada Revenue Agency provides additional direction in application policy paper SR&ED 96-07 as to the types of evidence to determine whether the asset was an experimental "prototype" or a "custom product."

Prototype indicators:	*Custom product indicators:*
1) non-standard material used	1) Asset subsequently sold / used commercially & *indications* that sale/use was intended
2) labour cost of copy < original	2) Asset subsequently used for demonstration purposes

We feel that The Canada Revenue Agency's reference to *intent* of the use of the prototypes at the outset of the project indicates that taxpayers would be wise to document facts to support the experimental as opposed to commercial intent of the project when and where applicable. They should further be aware that The Canada Revenue Agency will challenge these assumptions on the basis of what actually happened (as of the date of subsequent audits) particularly where the facts seem out of line with the intentions.

The remaining issues from a tax perspective are then;

1. whether materials were "consumed" in SR&ED vs. commercial use, and

2. the possible existence of non-required activities (not necessary to resolve the stated project uncertainties).

Both of these issues should be addressed in the "Research Steps" section of properly completed technical descriptions, both the activity (detail) and project (summary) levels.

IV.4 FINANCIAL ASSISTANCE / CONTRACT PAYMENTS FOR SR&ED / SALE OF EXPERIMENTAL PRODUCTION

IV.4.1 Com Dev Ltd. v. The Queen[51] – SR&ED assistance or commercial revenue

Facts:
Spar Aerospace Limited ("Spar") was awarded a contract by the Canadian government to design and manufacture a satellite ("Radarsat"). Com Dev was selected as a subcontractor for the design and manufacture of components. In total, it received $28,350,000 arising from the Spar-Com Dev Contract. Despite these fees, Com Dev suffered a $4,283,000 loss on the contract. It attempted to seek compensation from the Government of Canada but was unable to do so because there was no contractual relationship between Com Dev and the Government of Canada. The Canada Revenue Agency also claimed that the $ 28,350,000 received under the Spar agreement was government assistance.

Main Issue:
The Canada Revenue Agency claimed that all proprietary rights accrued to Government and therefore all amounts received were “government assistance.”

Relevant legislation:
The judge clarified that to qualify as a contract payment under paragraph (*b*) in subsection 127(9), an amount must:

1) be payable by a Canadian government, municipality or other Canadian public authority or by a person exempt from tax under Part I by virtue of section 149; **and**

2) be payable for SR&ED performed for it or on its behalf.

[51] *citing - [1999] 2 C.T.C. 2566 (T.C.C.)*

Judge's Analysis:
Despite the inclusion of a clause claiming that,

> "All Technical Information and Inventions conceived or developed or first actually reduced to practice in performing the Work under this Contract shall be the property of Her Majesty, and the Contractor shall have no rights in and to the same except as may be provided by Her Majesty…"

Another clause stated,

> "..the intellectual property for any deliverable computer software, processes, methods, techniques and know-how in existence or residence within COM DEV prior to effective date of the Contract is proprietary to COM DEV and can solely be used for the purposes of the RADARSAT program."

Ruling & rationale: fixed price components contract did not include the purchase of SR&ED

The judge felt that the effect of the second clause at a minimum severely restricted Her Majesty's right to a proprietary interest in technical information and inventions under the contract and therefore, "do not allow the Spar-Com Dev contract to simply speak for itself."

As a result the payment was NOT a contract payment NOR was it government assistance. Instead the judge concluded that the, "contractual relationship based on a fixed firm price for the purchase of the components did **not** include the purchase of SR&ED."

Comments and Author's Opinion

This case re-iterates some of the issues and conclusions brought forth in the 1996 case of CCLC Technologies. It further outlines both the complexities and opportunities related to performing SR&ED work which is directly or indirectly funded by any level of Canadian government. In this case the contract provided restrictions which would, at first read, indicate that all SR&ED rights accrued to the Government however, the courts were willing to look through these restrictions based on testimonies that such clauses were "standard in the defence industry" and intended to restrict unauthorized distribution of technologies rather than to represent the purchase of SR&ED. The case further underlines the importance of structuring contracts with government bodies to provide, "firm price contracts for the purchase of the components," rather than selling the results of the SR&ED work itself.

The fact that the assistance was not deemed to be received from the government was also an issue worthy of note since many auditors deem any amounts received "directly or indirectly" from any level of government to be "government assistance." This would indicate that, though all government contracts tend to limit the upside payment of any contracted amounts, those that do so with the effect of passing substantial technical and business risk to the taxpayer may not be deemed as government assistance.

Based on the continually increasing co-operation between government and private SR&ED performers, in the author's opinion, this case will likely be of considerable long-term significance.

IV.4.2 Les Cultures Laflamme[52] (1984) – sale of experimental production

Facts:

The appellant instituted an appeal from the assessment of respondent, the Minister of National Revenue (the "Minister"), for its 1986 taxation year.

The appellant described the facts of this affair in its notice of appeal, as follows:

1. Les Cultures Laflamme (1984) Inc. is a company specializing in the production of oyster mushrooms.
2. During its fiscal year ended November 30, 1986, the company was involved in a scientific research and experimental development project.
3. The Canada Revenue Agency recognized that the company conducted scientific research and experimental development during its fiscal year ended November 30, 1986.
4. The company claimed a research and development investment tax credit of $55,710 for the year 1986.
5. The Canada Revenue Agency agreed that 80 per cent of the current expenditures, that is $85,104, was related to research and development.
6. In its notice of assessment of September 16, 1988, The Canada Revenue Agency reduced the amount of research and development expenditures of $85,104 by the income from the sale of experimental production, that is $96,979.
7. The company filed a notice of objection dated December 9, 1988, claiming the investment tax credit of $55,710.
8. On August 29, 1989, the appeals branch ratified the notice of assessment for the year 1986.

Issues:
(a) whether the sums received from the sale of a product during the scientific research and experimental developmental phase of that product must be deducted in the calculation of the amount of qualified expenditures of a current nature for the investment tax credit, and

[52] Les Cultures Laflamme (1984) Inc., v MNR (TCC), June 17, 1992. [Docket: 89-2514(IT)]

(b) whether all or substantially all capital expenditures are attributable to the prosecution of scientific research and experimental development.

Legislation and Analysis:

The appellant's reasons are, in particular, the following:

(a) The purpose of section 37 of the Income Tax Act is to enable a taxpayer who carries on a business to deduct certain expenditures in respect of scientific research and experimental development which otherwise might not be deductible, either because they were not incurred for the purpose of gaining income within the meaning of paragraph 18(1)(a) or because they are capital expenditures which would not be deductible under paragraph 18(1)(b).

b) The scientific research and experimental development in which "Les Cultures Laflamme (1984) Inc." is involved consists in finding a process for achieving a constant and continuing production of oyster mushrooms. The sale of these mushrooms is one of experimental production, incidental to the research, and should not therefore reduce the amount of scientific research and experimental development expenditures for the purposes of computing the investment tax credit.
[Translation.]

The respondent's position was that, considering the income from production or scientific research, given that income exceeded current expenditures, there was no right to the investment tax credit.

Counsel for the appellant referred, in this connection, to the article by Mr. Peter M. Farwell, C.A., entitled, "Scientific Research and Experimental Development", Corporate Tax Management Conference, Canadian Tax Foundation, 1987, more particularly to the following passage, at pages 7:20 and 7:21:

On a related matter, The Canada Revenue Agency requires that any revenue earned from the sale of prototypes, pilot plants, or scrap be netted against SR&ED expenditures. There appears, however, to be no specific technical support for this position, since the Act does not require any such netting.

The Canada Revenue Agency's reasoning seems to be that if a capital asset recovers more than 10 per cent of its original cost, the asset was not used "all or substantially all" for SR&ED. This particular argument is, I suggest, weak; and given that there is no specific requirement in the Act to net such revenue against SR&ED expenditures, the taxpayer appears to be in a strong position should he choose not to do so.

He also referred to the article by Tom C. Routley, C.A., entitled, "Research and Development Tax Incentive Policy: A Call to Action", Conference Reports, Canadian Tax Foundation, 1986, at page 24:13:

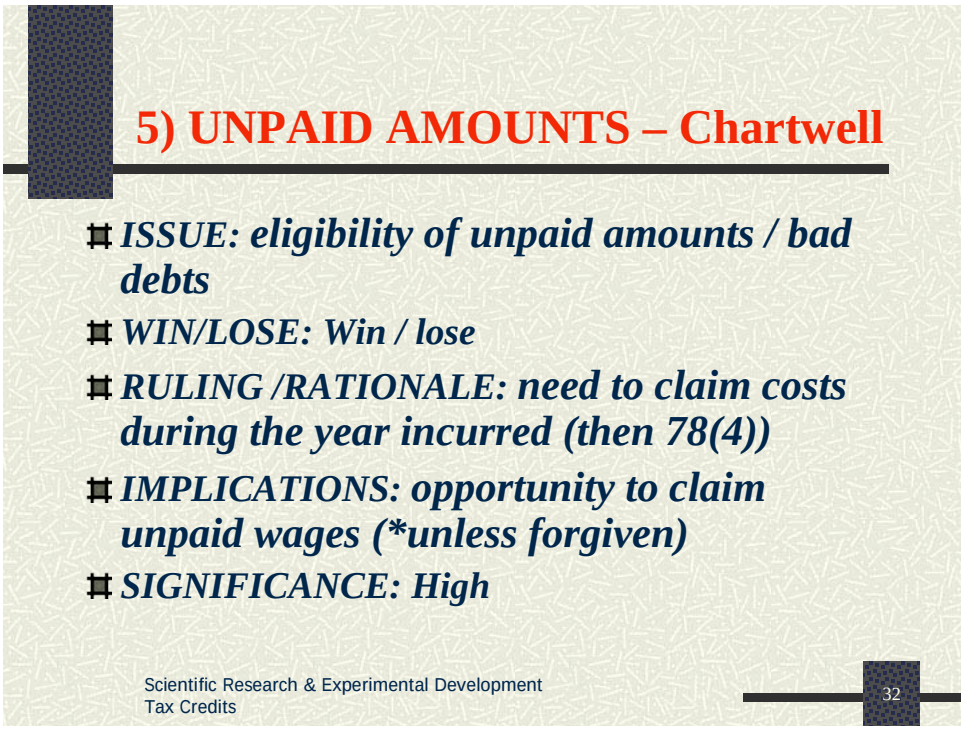
Qualifying R&D expenditures should not be reduced by the proceeds of sale of any prototypes, scrap material, or experimental "production". All R&D expenditures are incurred for the purpose of generating income. There is no justification for considering the proceeds of these sales as a reduction to the funds put at risk on R&D.

Ruling & rationale: subsequent sale irrelevant if SR&ED performed

The deduction for scientific research and experimental development is calculated under subsection 37(1). There is nothing in this subsection or elsewhere in the Act or Regulations which requires scientific research and experimental development expenditures to be reduced by the income from the sale of experimental production.

IV.5 UNPAID AMOUNTS

IV.5.1 Chartwell v. Queen[53] - eligibility of unpaid amounts



Facts:

These assessments came about because the Appellant, Chartwell Management Inc. (Chartwell), invoiced Hypercore Inc. (the SR&ED claimant) for management fees, but did not record them in any way in their books and records. Chartwell was also a minority shareholder in Hypercore.

Hypercore recorded and then claimed the costs in the Chartwell invoices when applying for SR&ED grants and credits. The SR&ED credits were denied because Hypercore never paid the invoices.

Hypercore subsequently received an offer of $1,483,937 for all of the shares on the basis that Hypercore was clean of any debt. Therefore all debt, including Chartwell's was forgiven and the shares were sold by all the shareholders.

The SRED auditor advised the income tax section of the problem which had been created and these assessments and appeals followed.

Issue(s):

The SR&ED tax credit claims for Chartwell's costs were denied because Hypercore never paid the invoices. The case itself dealt with whether Chartwell should have paid tax on the amount "receivable" regardless of the fact that it was not paid.

[53] *CHARTWELL MANAGEMENT INC.,Appellant, v. THE QUEEN,Respondent. (TCC - Docket: 2002-2638(IT)G - November 8, 2004)*

Relevant legislation and analysis:

Paragraph 12(1)(b) of the Income Tax Act required that the invoices be reported as receivables for income tax purposes. It reads:

12. (1) There shall be included in computing the income of a taxpayer for a taxation year as income from a business or property such of the following amounts as are applicable
...
(b) **any amount receivable** by the taxpayer in respect of property sold or services rendered in the course of a business in the year, **notwithstanding that the amount or any part thereof is not due until a subsequent year**,

IV.5.2 Ruling & rationale: eligible costs incurred

The appeals were allowed and reassessed on the basis that the amounts in question for each Appellant for the years in dispute **constituted bad debts in those years.**

Implications and author's commentary

There is a provision in the SR&ED legislation, which (**temporarily) denies an investment tax credit for any costs, which remained unpaid within 180 days of year-end**[54]. These costs will be audited in the current year and a conclusion will be made on their "reasonableness," however, investment tax credits will be paid on these amounts only in the years in which they are actually paid.

In this particular case the court considered whether Chartwell should have paid tax on the amount "receivable" regardless of the fact that it was not paid. In particular there was indication that Chartwell was contemplating being issued shares in lieu of cash payments.

If this had happened the company would be deemed to have paid the amounts (and therefore they would have been eligible for SR&ED purposes) however, Chartwell would have been required to disclose the full amount of the "invoice" as paid (i.e. as income received).

Planning – "salary & wages" vs. management fees

As an alternative, if a transaction is structured to have "unpaid wages" rather than "management fees," an **employee will not have to pay tax on wages until they are "received."** [55]

This difference in "cash" vs. "accrual" basis of revenue recognition for "salaries" as opposed to "management fees" may provide a valuable planning tool for an owner manager who cannot afford to pay him or herself fair market wages for the year in question, but who wishes to accrue reasonable amounts during the year.

When these amounts are subsequently paid the company will automatically receive its related SR&ED investment tax credits!

[54] *ITA subsection 78(4) denies ITC's on amounts until taxation year in which paid*
[55] *ITA subsection 5(1) only taxes employees on income "received" during the year*

IV.6 FOREIGN EXPENSES

IV.6.1 Data Kinetics Ltd. v. R. [1998](TCC) – foreign "mainframe" costs may be Canadian SR&ED

Facts:
The taxpayer rented computer time on a mainframe computer in Alabama. The taxpayer required a mainframe with a full set of operating systems to test its software in a variety of environments. The taxpayer further illustrated that no suitable Canadian mainframes were available for this task and incurred $191,360 in communication charges. All work was performed by the taxpayer's employees from facilities based in Ottawa. The Canada Revenue Agency allowed $165,157 as a foreign SR&ED expenditure under subsection 37(2) (which in turn does not earn any investment tax credit) and disallowed the remaining $26,203 as communication charges which were incurred in Canada but otherwise included in overhead expenses which were already covered by the "proxy" election for overhead expenses.

Issue: rental of mainframe outside Canada

If mainframe outside Canada were the costs to rent mainframe time and related communication charges: SR&ED performed in Canada (as per ITA subsection 37(1)) vs. SR&ED performed outside Canada (as per ITA subsection 37(2)), &

if 37(1) whether "communication charge" component would be covered by proxy amount

Ruling and rationale: attributable to SR&ED if researcher "in Canada"

The taxpayer was successful on both counts. After a review of the legal definition of the term lease[56] the judge found that rental payments for such time were,

"…attributable to the lease of equipment.."

and hence, SR&ED carried on in Canada thus deserving 37(1) treatment as long as researcher performing related work in Canada.

Furthermore the judge concluded that communication costs related to such communication charges were not covered by proxy amount since they were "wholly attributable to equipment used for SR&ED in Canada"

Comments and author's opinion:
In our opinion this case provides clarification of the proper treatment of foreign "processing" abilities and is therefore likely of considerable long term significance.

[56] *Black's law Dictionary – "…word "lease" means a contract by which one owning such property grants to another the right to possess, use and enjoy it for specified period of time in exchange for periodic payment …"*

IV.6.2 LGL[57] -"data collection outside Canada not SR&ED"

Facts:

The appeals dealt with the taxpayer's 1991, 1992 and 1993 taxation years. The taxpayer was a Canadian company. Its stated business involved, "doing research on behalf of governments, industry and other organizations in such matters as environmental effects, environmental planning and assessment, resource management, ecological research into terrestrial, freshwater and marine systems and bird hazards to aircraft."

During the year the company claimed four separate SR&ED projects. The Canada Revenue Agency agreed that each of the projects in its entirety was SR&ED and that the expenditures were of a current nature.

Main issue:

The sole issue addressed by the Tax Court was whether certain SR&ED costs for work, that was admittedly carried on in Alaska as part of the four eligible projects, would qualify under paragraph 37(1)(a) of the *Income Tax Act* as SR&ED "carried on in Canada".

Analysis

The courts examined precedences set in two separate cases.

The first was *Tigney Technology Inc. v. R.*, [1997] 2 C.T.C. 2333 which it recognized had been appealed to the Federal Court of Appeal and accordingly it made no comment on it beyond observing that, "the experiments in Kentucky appear to have been a rather small incident of the SR&ED carried on in Canada. Here the very basis [almost 30% of costs] of the SR&ED that was conducted was the data collected off the shore of Alaska."

[57] *LGL Limited v. The Queen [1999] (TCC)*

In the second case: *Data Kinetics Ltd. v. The Queen*, 98 DTC 1877, the only activity outside of Canada was the use of a dedicated telephone line connected with a mainframe computer in the U.S. The judge noted that in this case no personnel of that taxpayer ever went to the U.S., and on this basis alone felt that the case was distinguishable from those presented by LGL.

Ruling and rationale: ineligible if physically outside Canada

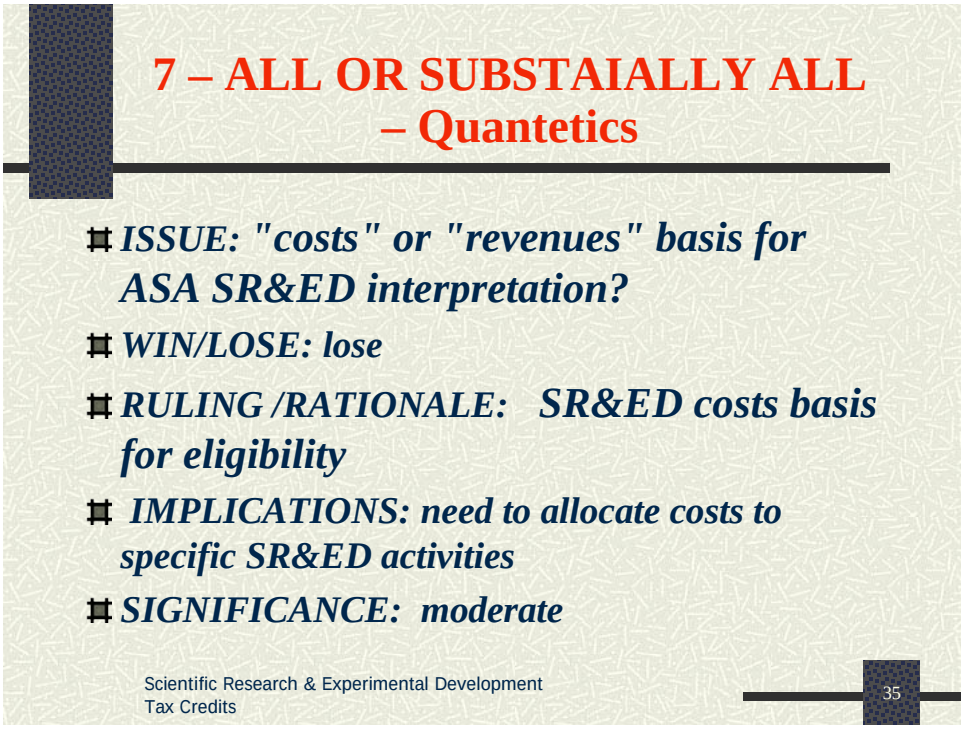
Despite the fact that the data collection conducted off the northern coast of Alaska was brought to Canada and analyzed as part of the overall research projects, the judge felt that the wording "carried on in Canada" as contained in paragraph 37(1)(a) was clear: the work must physically take place in Canada.

Comments and author's opinion:

The case may also be of interest to the technical staff of taxpayers conducting SR&ED in the "environmental" fields in that it provides additional, technical overviews of each of the four eligible projects.

IV.7 ASA – INTERPRETATION OF "ALL OR SUBSTANTIALLY ALL" (ASA)

IV.7.1 Quantetics[58] - Whether costs or revenues basis for ASA SR&ED interpretation



Facts

The appellant is a Canadian corporation that was incorporated in 1977 in order to pursue the application of quantitative scientific and mathematical techniques. Its president and sole director is an electrical engineer with a Ph.D. in chemical engineering. The appeal dealt with the 1985 through 1987 taxation years.

In order to finance its research and development activities for the years in question, the appellant got involved in, at least, three additional businesses:

- exporting firearms from Canada to the United States and recovered duties and taxes,
- arbitrage market opportunity to earn commissions in the form of federal sales tax recoveries and
- services recovering duty drawbacks on exported automobiles.

With respect to the 1985 fiscal year, the consulting fees attributable to R&D account for 19 per cent of total revenue. In 1986, the consulting fees represented 31 per cent of total gross revenue. In 1987, there was no income at all from R&D.

On assessment the Minister proposed that that only an amount of $345,397 out of the total consulting fees of $465,089 was attributable to R&D. The taxpayer claimed that these additional expenses related to the "additional" businesses should be allowed since it believed, despite the facts listed above, that "all or substantially all" of the company's efforts were SR&ED related.

[58] *Date: 2000/06/ 02, Docket: 91-1411(IT)G, (TCC)*

Issues:
1) Should the 90 per cent test be applied to gross revenue only to determine whether a company is involved "all or substantially all" in SR&ED activities. As a result, were costs for some of the "non-SR&ED" activities to be included in the claim based on the fact that their proceeds helped to finance the research?

2) The case also dealt with the issue of whether a bonus to a specified employee would be eligible. Since the law regarding these payments has changed for taxation years after 1992[59].

Relevant legislation & analysis:

Counsel for the appellant submitted that nothing in the *Act* suggests that it was intended that "all or substantially all" should mean more than 90 per cent. On the contrary, when the legislator intends to refer to a specific percentage, he does so, as is evidenced in other sections of the *Act*. They argued that where the taxing statute is not explicit, the ambiguity should be resolved in favour of the taxpayer[60]. This is more particularly so with respect to tax incentives for doing R&D where the legislation dealing with such incentives must be given such fair, large and liberal construction and interpretation as best ensures the attainment of its objects[61].

Counsel for the company proposed that the "90 per cent of revenue test" applied to gross revenue is not an appropriate test arguing that if the legislation had been intended to refer specifically to a gross revenue test, there is ample authority in the *Act* to suggest that it could have done so. They also provided references to various other sections in the *Act* containing an explicit reference to gross revenue (for example the provisions on foreign accrual property income speak of "more than 90% of . . . gross revenue").

Ruling and rationale: SR&ED costs basis for eligibility

In the judge's view, the appellant's testimony on the subject was, "very general and it seems to me that he did not intend to reveal the exact source of those fees. Nor was there any accounting evidence adduced by the appellant that could have provided more accurate information regarding the statement of income and expenses."

Based on these facts the judge concluded, "It was not illogical for the Minister, in the circumstances, to conclude that the disallowed expenses could have been incurred for other purposes than R&D. At least, I do not find that the appellant has demonstrated the contrary."

Implications and author's commentary:

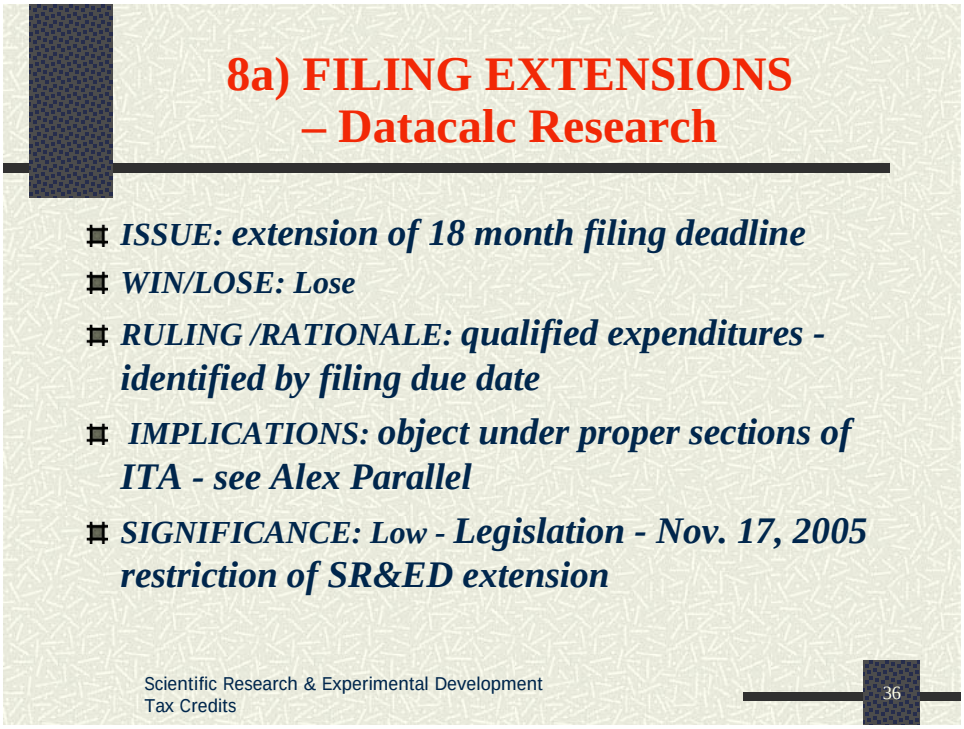
In the author's opinion this case did not provide a clear ruling that the Revenue test must always be used to determine whether the "all or substantially all" criteria is met however, it does underline the importance of providing a "reasonable basis" of justification for supporting any variances. In this case the taxpayer could not provide "reasonable" links of the costs of the work to the research in question other than the fact that the proceeds would be used for SR&ED activities. This line of reasoning is obviously faulty since it would in fact enable virtually any type of "non-R&D" activity to become eligible for tax credit.

Of long term interest is the fact that the judge was willing to consider criteria which failed to meet a strict 90% or more, R&D intent test but that the facts in question were overwhelmingly below the 90% margin. This may therefore be of long term interest to taxpayers in supporting whether a capital additional met the CRA's criteria in determining whether an asset with perhaps an 80% R&D intent might also be considered to meet the "ASA" R&D criteria.

[59] *Bonuses to specified employees excluded per ITA subsection 37(9)*
[60] *(*Johns-Manville Canada Inc. v. The Queen*, [1985] 2 S.C.R. 46)*
[61] *(*Northwest Hydraulic Consultants Ltd. v. The Queen*, [1998] 3 C.T.C.2520 (T.C.C.)*

IV.8 FILING EXTENSIONS

IV.8.1 Datacalc Research [62] - extension of 18 month filing deadline



Facts:

This appeal is from an assessment for the appellant's 1986 taxation year whereby the Minister of National Revenue denied SR&ED ITC's in the amount of $665,607 claimed in its return of income for the 1986 taxation year since the claim was not filed until 1999: well past the 18 month deadline.

Issue(s): extension of 18 month filing deadline

Whether the late-filing could be warranted and, if so, under what conditions?

Ruling & rationale: qualified expenditures must be identified by filing due date

Basically the credit was denied as based on current legislation, qualified expenditures must be identified on or before the due date for filing the tax return for the subsequent taxation year.[63]

Implications and author's commentary

It seems quite clear that, neither the CRA, nor the Tax Courts are willing to extend the prescribed filing deadlines. In the author's opinion this underlines the importance for taxpayers to file on a timely basis.

[62] *(TCC) Docket: 2000-1413-IT-G Date: 2002/02/22*
[63] *ITA subsection 37(11)*

IV.8.2 Alex Parallel Computers[64] -basis for extension of filing deadline

Main Issue

Whether The Canada Revenue Agency can waive requirement to file, "SR&ED return with all prescribed information," by 18-month deadline.

Facts

On March 1, 1993, the company engaged the University of Ottawa to perform certain SR&ED work.

On March 12, 1996, The Canada Revenue Agency signed an agreement with the taxpayer, agreeing that, 66.5% of the amounts spent with the University qualified as SR&ED for its 1994 and 1995 taxation years.

The taxpayer did not file its 1994 return until June 12, 1996, i.e., three months after the signing of the agreement with The Canada Revenue Agency *and six weeks after the statutory (18-month) deadline (i.e. April 30, 1996).*

The Canada Revenue Agency refused to both:

1. waive the requirement for the filing by taxpayer of prescribed forms for 1994 and,

2. extend the time for filing taxpayer's 1994 return.

Relevant Law

- The Income Tax Act:
  Subsection 220(2.1) states,

  "Where any provision of this Act or a regulation requires a person to file a prescribed form, receipt or other document, or to provide prescribed information, the Minister may waive the requirement, but the person shall provide the document or information at the Minister's request.

  Furthermore, subsection 220(3) also clarifies that,

  "The Minister may at any time extend the time for making a return under this Act."

- The Canada Revenue Agency's Application policy SR&ED 9601, states,

  "The definition of qualified expenditure in subsection 127(9) of the Act requires certain prescribed information to be filed within prescribed time frames. Any requests to waive this requirement, under subsection 220(2.1) should be denied. Subsection 220(2.1) was included in the Act to accommodate E-filing."

Analysis

The taxpayer argued:

a. that The Canada Revenue Agency was already fully aware of all the SR&ED information effecting its 1994 taxation year, even before the 1994 return filed; and

b. that it was impossible to file its 1994 return before the agreement with The Canada Revenue Agency was signed.

[64] ***Alex Parallel Computers Research Inc. v. The Queen*** *[1998] (FCTD)*

Ruling and rationale: CRA cannot restrict Minister's power to extend

The judge in this case sided with the taxpayer, finding:

a. "that [The Canada Revenue Agency's] only ground for refusing taxpayer's request was that, as a matter of *Departmental policy*, Ministerial waivers (under subsection 220(2.1)) of requirements to file prescribed forms to be limited to situations involving electronic filings;"

b. that, in reaching this decision,"[The Canada Revenue Agency] having elevated departmental policy to the equivalent of a statutory requirement, [had] unduly narrowly construed subsection 220(2.1);"

Comments and author's opinion:

In the author's opinion, the judge's ruling is of little surprise once one takes a clear look at the legislation. The result however, merely required the Minister [i.e. The Canada Revenue Agency] to, "redetermine the issue in accordance with ITA subsections 220(2.1), and (3)." This in turn does not guarantee the taxpayer success since, based on the facts outlined, it appears that they had all required information 6 weeks before the filing deadline and yet elected to file 6 weeks after this deadline.

As a result, unless additional facts exist which were not disclosed in the initial case, the taxpayer might still find itself unsuccessful when the Minister "redetermines" the issue. Further taxpayer guidance as to what criteria the Minister may apply to evaluate whether circumstances warrant extensions can likely be extrapolated from The Canada Revenue Agency's Information Circular 92-1: Guidelines for accepting late, amended or revoked elections.

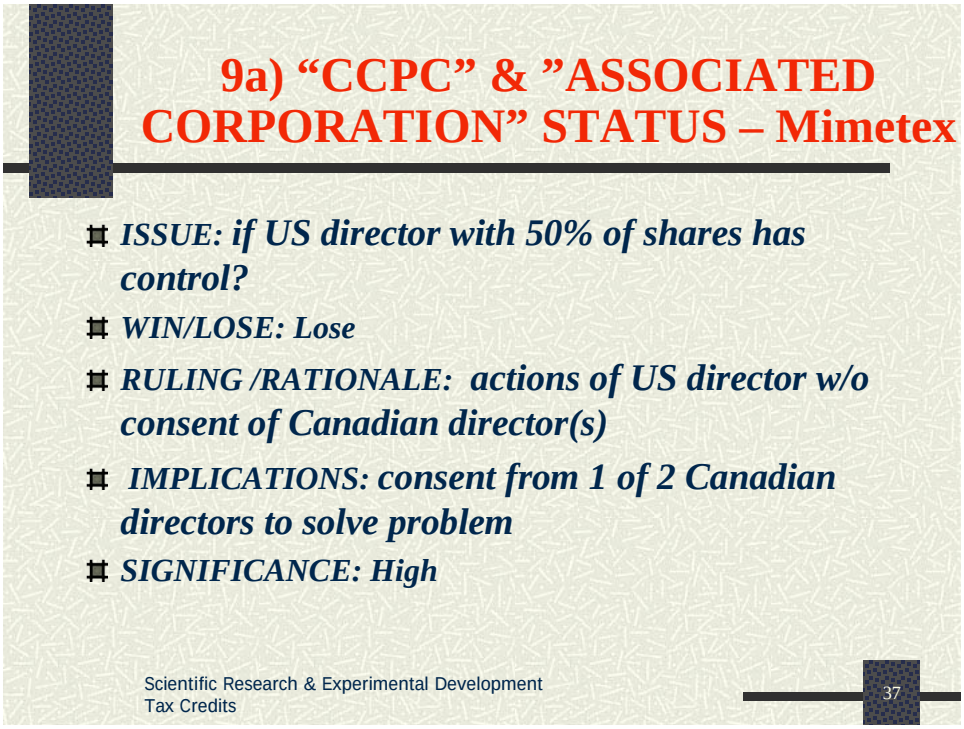
Regardless of this fact, the case is likely of considerable long-term significance in that it;

- once again illustrates that taxpayers should be wary of The Canada Revenue Agency documents which do not appear to have direct, legislative support, &

- establishes a precedent that there may be other instances where "extensions" of the filing deadline may be warranted.

IV.9 “CCPC” & “ASSOCIATED CORPORATION” STATUS

IV.9.1 Mimetex Pharmaceutical [65] - whether US director with 50% of shares has control



Facts:

During the year in question, Mimetix (a foreign corporation) owned 50 common shares in the capital stock of the appellant, and two Canadian residents, who were also directors owned 25 common shares each.

There were three directors elected to the board, one a U.S. resident and the other two Canadians.

Issue(s): “defacto” control

Both parties agreed that no one had “de jure” (voting) control over the appellant. The issue is rather whether the appellant was controlled in fact, directly or indirectly in any manner whatever, by a non-resident. In other words, it has to be determined whether the non-resident corporation Mimetix Inc. ("Mimetix"), which owned 50 per cent of the voting shares of the appellant in 1996, exercised “de facto” control over the Canadian company.

The CRA’s council pointed out that;

- The two Canadian directors, who, according to the appellant's argument, were supposed to control the appellant, in fact knew almost nothing about the appellant (for example one did not know at the time of his examination for discovery how many employees were working for the appellant, who had signing authority for the appellant, etc.).

- Mimetix had financial control over the appellant and had a controlling influence over the appellant's affairs. This is best illustrated, in his view, by the fact that a Canadian director of the appellant, had to leave following a

[65] *(TCC) Docket: 1999-4847-IT-G Date: 2001/11/08*

conflict with another U.S. doctor, who was not a shareholder, director or officer of the appellant, but was hired by the U.S. director on his own decision, without any resolution of the board of directors.

Relevant legislation and analysis:

De facto control within the meaning of subsection 256(5.1) of the Act which reads as follows:

> "Control in fact. …, a corporation shall be considered to be so controlled by another corporation, person or group of persons (in this subsection referred to as the "controller") at any time where, at that time, **the controller has any direct or indirect influence that, if exercised, would result in control in fact of the corporation, except** that, where the corporation and the controller are dealing with each other at arm's length and the influence is derived from a franchise, licence, lease, distribution, supply or management agreement or other similar agreement or arrangement, the main purpose of which is to govern the relationship between the corporation and the controller regarding the manner in which a business carried on by the corporation is to be conducted.."

Ruling & rationale: control evidenced by actions

Based on the facts provided, the judge concluded that,

> **"Indeed the evidence discloses that the only director that exercised such control and supervision was the non-resident director. … without the approval of the board of directors."**

Implications and author's commentary

In the author's opinion this case underlines the importance of clearly considering "defacto" control issues whenever there are foreign shareholders or directors of a Qualified Canadian Controlled Private Corporation.

Associated corporations must share SR&ED expenditure limits

The Income Tax Act generally deems that, where a shareholder owns greater than 50% of the fair market value of the capital shares of a company it will be deemed to control it. If a person owns more than one company in this fashion the companies will be "associated" for taxation purposes. This "association" umbrella can be extended wherever "related persons" each control corporations and there is 25% cross-ownership of shares in either direction.

Since "associated" companies are required to share the various business[66] and expenditure[67] limits, for reduced taxes and enhanced SR&ED incentives respectively, the legislation also allows rents received by an associated company to be deemed "active" rather than passive income.

Additional guidelines & factors to consider in evaluating defacto control

The CRA states that, "de facto control consists of all forms other than dejure control, by which a person may exercise control over a corporation." and provides the following examples:

Major factors:

1) The ability to change the board of directors or reverse its decisions,

2) Making alternative decisions concerning the actions of the corporation in the short, medium or long term,

3) The ability to directly or indirectly terminate the corporation or its business, or

4) The ability to appropriate its profits and property.

[66] *Business limit defined per ITA subsection 125(3)*
[67] *SR&ED Expenditure limit defined per ITA subsection 127(10.2)*

Additional general factors:

a) The percentage ownership of voting shares in relation to the holdings of other shareholders;

b) Ownership of a large debt or retractable preferred shares,

c) Shareholder agreements including the holding of a casting vote,

d) Commercial or contractual relationships of the corporation, for example, economic dependence on a single customer or supplier,

e) Possession of a unique expertise that is required to operate the business; and

f) The influence that a family member who is a shareholder, creditor, supplier, etc. may have over another family member who is a shareholder of the corporation.

Implications to corporate structure

This example illustrates that there are considerable pitfalls and potential opportunities to structuring ventures with foreign shareholders, public companies and other companies in a manner that maintains CCPC status and eligibility for enhanced tax credits. Some of the related opportunities and pitfalls are illustrated in the case study analysis.

IV.9.2 HSC Research – meaning of "defacto control"

Facts:

The facts deal with taxation years from 1986 to 1988 (which predate the 1988 amendments to the Income Tax Act to include defacto control) however, the company was originally a non-profit corporation with no share capital. Its goals were to commercially exploit he results of current and acquired research information and to devote all profits to the Toronto Hospital for Sick Children Foundation or reinvestment in further research.

Subsequently it filed amendments to its articles and began to carry on business and therefore became liable for income tax and correspondingly, investment tax credits for eligible SR&ED.

Issues:

This case provides insight into several important SR&ED structuring issues including:

The definition of control and the taxation of "non-profit or charitable" organizations which happen to "carry on business."

Legislation:

The Canada Revenue Agency (then Revenue Canada) did not contest the eligibility of the technical work performed during the years in question but whether the Hospital Foundation did in fact control the company during the years in question in which case the company would be defined as an excluded corporation under the income tax act. If this were the case, the company would still be entitled to the full 35% investment tax credit rate for qualified corporations I however, the credit on current expenses would (per subsection 127.1(2) only be 40% refundable instead of 100% refundable as with the qualified corporations.

In 1988, subsection 256(5.1) changed the meaning of the phrase "controlled directly or indirectly in any manner whatever" to effectively impose a test of de facto control. In the author's opinion this case provides one of the first precedence to apply these procedures and is therefore an interesting basis for analysis.

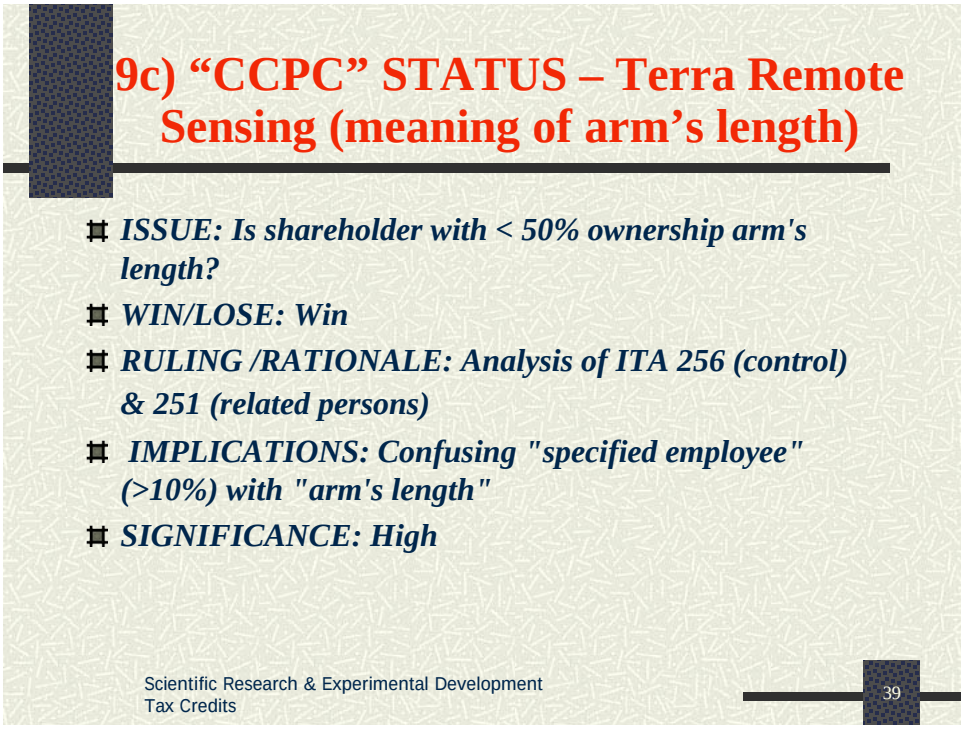
Analysis, ruling & rationale:

Since there was still no share capital issued it became impossible to use a dejure control definition and were forced to examine defacto control to determine whether the company was in fact controlled by the Hospital. Interestingly enough, the fact that none of the directors of the company were also directors of the foundation and the fact that the timing of any payouts to the foundation were at the full control of the company's board were (among other facts) enough to convince the judge that the company was in fact not controlled (and therefore not associated) with the hospital foundation and therefore was eligible for full refundability of the lTC's an current SR&ED expenses.

Author's commentary / filing implications:

The primary point of interest in this case is likely the precedence it establishes in determining whether companies are associated because of defacto control. Given the limited direction offered by the courts or Revenue Canada on defacto control issues since its inception in 1988 this case is therefore of considerable long term interest to all claimants with the potential of associated parties.

IV.9.3 Terra Remote Sensing[68] – meaning of "arm's length"



Facts:

Terra's shares were owned as follows:

- 25 % by a company controlled by Mr. V;
- 18 % by a company controlled by Mr. O;
- 25 % by a company controlled by Mr. Q;
- 32 % owned by 10 other employees.

The individual Appellants (Mr. V, Mr. O & Mr. Q) are not related and each was a director.

Issue(s):

Did the Appellants deal as employees at arm's length?

Relevant legislation and analysis:

The Income Tax Act generally deems that, where a shareholder owns greater than 50% of the fair market value of the capital shares of a company it will be deemed to control it.[69]

If a person owns more than one company in this fashion the companies will be "associated" for taxation purposes. This "association" umbrella can be extended wherever "related persons"[70] each control corporations and there is 25% cross-ownership of shares in either direction[71].

[68] *Terra Remote Sensing Inc. v. The Queen - Citation 2006 TCC 279 - May 12, 2006 - Docket: 2005-1558(EI)*
[69] *Definition of control per ITA subparagraph 256(1.2)(c)(i)*
[70] *Related persons defined per ITA subsection 251(2) – includes parents, in-laws & siblings*
[71] *Definition of "Associated corporations" per ITA paragraphs 256(1)(c to e)*

In the judge's opinion,

> "Clearly, de facto control is not a factor. No one Appellant had control of the corporate Appellant to influence the bargaining position in establishing the employment arrangement."

Ruling & rationale:

As a result the judge concluded,

> "the application is equally consistent with them **simply being specified shareholders** as it is with being at arm's length."

Implications and author's commentary

This case illustrates the high degree of confusion amongst tax practitioners in determining whether an employee is:

a) Specified – meaning they own >= 10% of any class of stock of the corporation, vs.

b) Non-arm's length – meaning that they and direct relatives "control" the corporation.

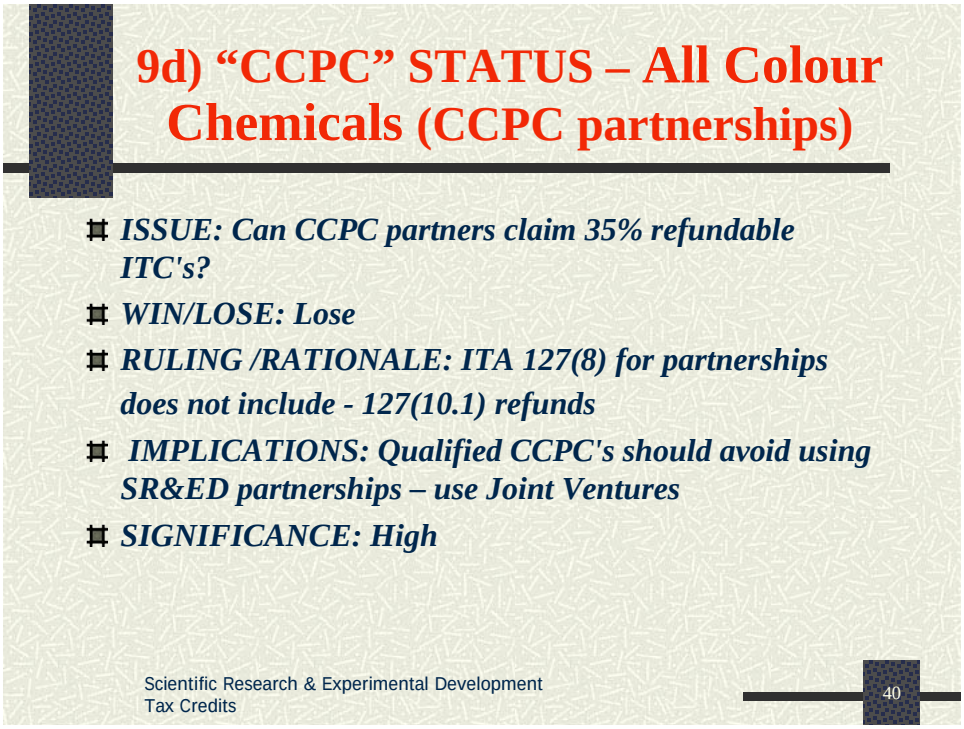
Both of these situations have drastically different effects on the eligibility of payments for SR&ED tax credit purposes.

In particular, expenditures for SR&ED performed by a "non-arm's length" performer are not "immediately" qualified expenditures for ITC purposes.[72] However, the performer can elect to claim or transfer the actual qualified expenditures incurred.[73]

This measure prevents the company from unfairly marking up the costs on "non-arm's length" transactions but would not be required in the fact scenario of this case.

[72] *ITA paragraph 127(9)(f) in the definition of "qualified expenditures"*
[73] *form T1146 – ITA subsection 127(13)*

IV.9.4 All Colour Chemicals – lose enhanced ITC's via partnership[74]



Facts:

The appellants were both Canadian-controlled private corporations which carried on business in partnership.

That business involved the production of paint and included research and development activities in that field.

Based on expenses incurred in carrying out such research and development the appellants claimed investment tax credits. The Minister disallowed those claims to the extent that they relied on subsection 127(10.1).

In other words they claimed enhanced 35% fully refundable credits since each was a "qualified CCPC."

Issue:

Are qualified CCPC's still eligible to earn enhanced ITC" if work done via partnership?

Legislation, Analysis & Ruling

He did so on the basis that, in the case of appellants who carry on business in partnership, the Act does not permit the addition to the investment tax credit of amounts for which provision is made in subsection 127(I0.1) because no reference to that subsection is to be found in subsection 127(8).

The appellants argued that partners have a right to claim investment tax credits which does not depend on subsection 127(8).

[74] *Allcolour Chemicals Limited and Allcolour Paint Limited v. Her Majesty The Queen [TCC] [1993] 2 C.T.C. 3050, 93 D.T.C.1194*

In the judges;' view the appellants' argument had to be rejected because it would lead to a capricious and improbable interpretation of the statute. Subsection 127(8) was intended to define the extent to which taxpayers who carry on business in partnership may claim investment tax credits in respect of the expenditures of the partnership. Appeal dismissed.

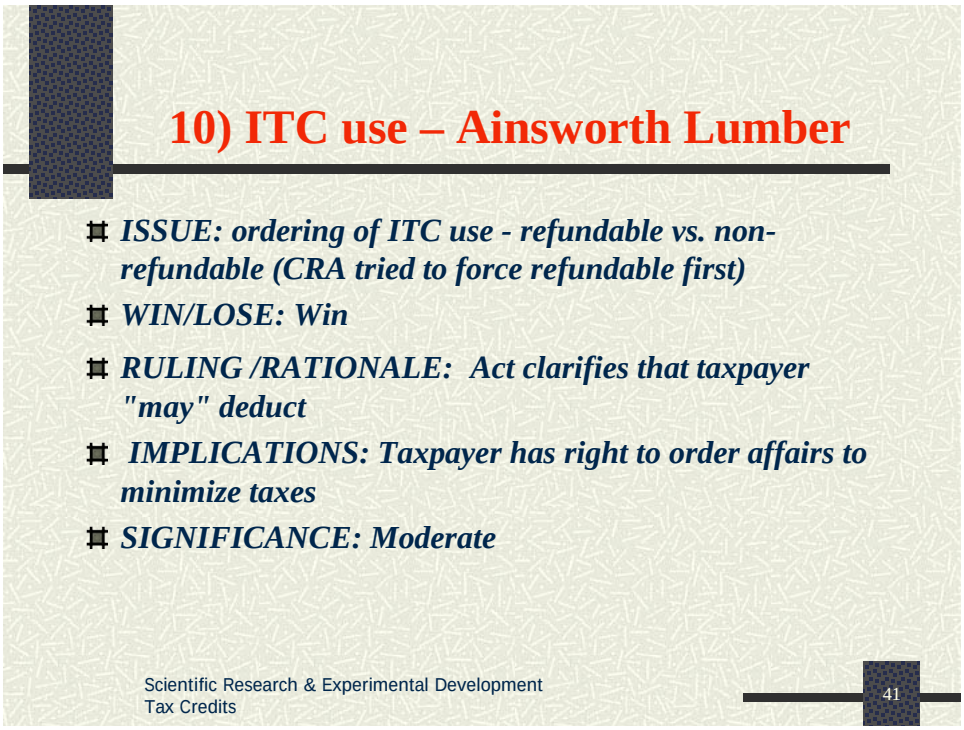
Implications and author's commentary

This case outlines the extreme importance of properly structuring transactions involving CCPC's.

In this case the judge commented that the client might have been successful if they considered using a "joint venture" instead of a forma partnership.

IV.10 REFUNDABLE VS. NON-REFUNDABLE ITC's

IV.10.1 Ainsworth Lumber[75] – ordering of ITC use



Facts: ITC usage not chronological

The facts of the case are voluminous however, a major issue addressed whether the company was required to deduct investment tax credits ("ITC's") it may have had arising out of expenditures incurred in its 1993 taxation year from tax otherwise payable before deducting ITC's arising in a subsequent (1995) taxation year?

Issue: Ordering of ITC use

Are there any ordering rules on this ITC usage?

Relevant legislation

The judge examined legislation relating to the deduction of the ITC which reads, in part, as follows:

> "There **may** be deducted from the tax otherwise payable by a taxpayer under this Part for a taxation year an amount not exceeding the least of…"[76] (emphasis added)

Ruling & rationale: Taxpayer elects order

[75] *AINSWORTH LUMBER CO. LTD., v. THE QUEEN, Date: 2001 04 24 Docket: 98-1052-IT-G (T.C.C.)*
[76] *Per ITA subsection 127(5) – Investment Tax Credit*

The CRA argued that subsection 127(5), permitting the deduction of ITC's, requires the deduction of the 1993 ITC's before the deduction of the 1995 ITC's.

After a detailed review of the wording of the subsection the judge did not agree stating,

> "That subsection simply provides a formula for determining the amount of ITC's that may be deducted from the tax otherwise payable for a taxation year. It includes neither direction nor prohibition respecting the order of ITC deduction."

The judge further clarified his opinion that,

> "If Parliament had intended an "ordering" of deductions it would have so legislated as it did in subsection 80(3).[6] That section provided that a formula determined amount be applied to reduce, in the following order the taxpayer's (i) non-capital losses (i.1) farm losses, (ii) net capital losses, (iii) restricted farm losses for preceding years ..."

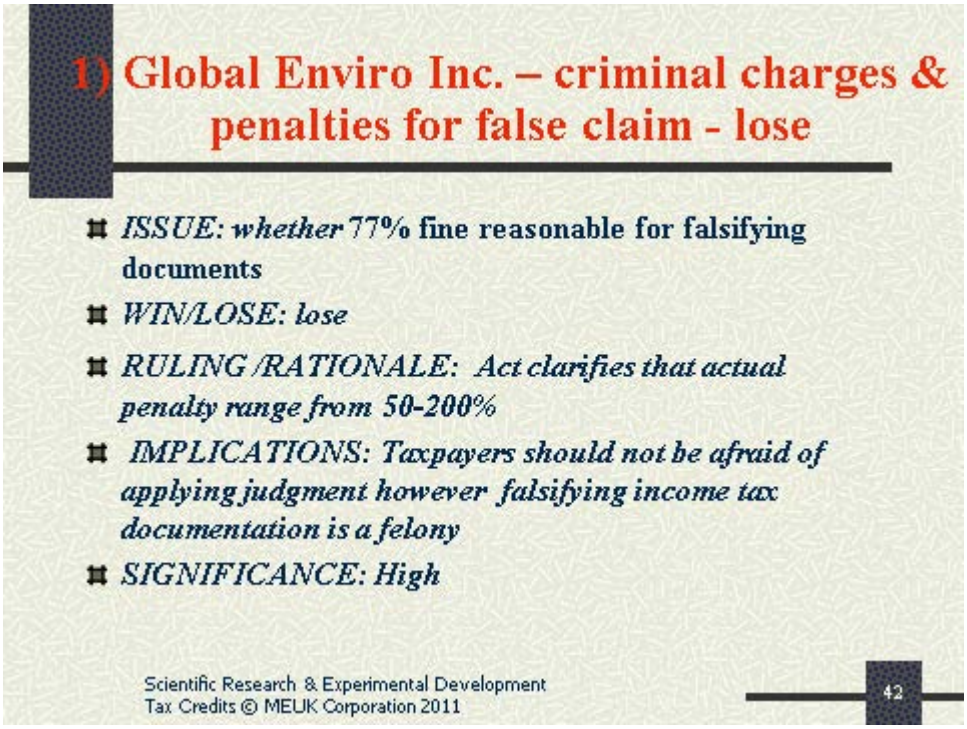
Implications and author's commentary

Although the specific facts of this case are somewhat unique, the implications of the judgment are likely of considerable significance to taxpayers who earn refundable ITC's since it implies that the taxpayer will always be able to apply non-refundable tax credits against any taxes payable while maintaining any refundable credits. In the author's opinion, it also illustrates the importance for tax preparers to contemplate the optimal use of these credits in the related tax form[77].

[77] *CRA Corporate Income Tax Schedule 31 – Investment tax credit*

V SR&ED cases regarding "legal" compliance issues

V.1 Global Enviro Inc. – criminal charges for false claim - lose



Facts:

This was an appeal from a prior 2009 conviction.

It took place in Alberta Criminal court rather than the tax court of Canada.

In this case the company filed a claim for the May 31, 2002 taxation year. Some of the costs in the claim were related to prior taxation years.

The CRA then notified the client that (due the to filing deadlines) only costs related to the 2002 and subsequent years would be claimable.

The company then, "provided documentation to the CRA after this meeting that was intentionally misleading and designed to continue to pursue the claim."

The company and its President were each fined $250,000 representing approximately 77% of the total tax benefit "falsely claimed."

Issue(s):

The original 2009 case dealt with the criminal issue. The appeal dealt with an attempt to lower or reduce the fines.

Relevant legislation and analysis:

Section 239(1.1)(g)(ii) of the Income Tax Act provides for a fine on summary conviction of, "not less than 50% and not more than 200% of the amount … entitled".

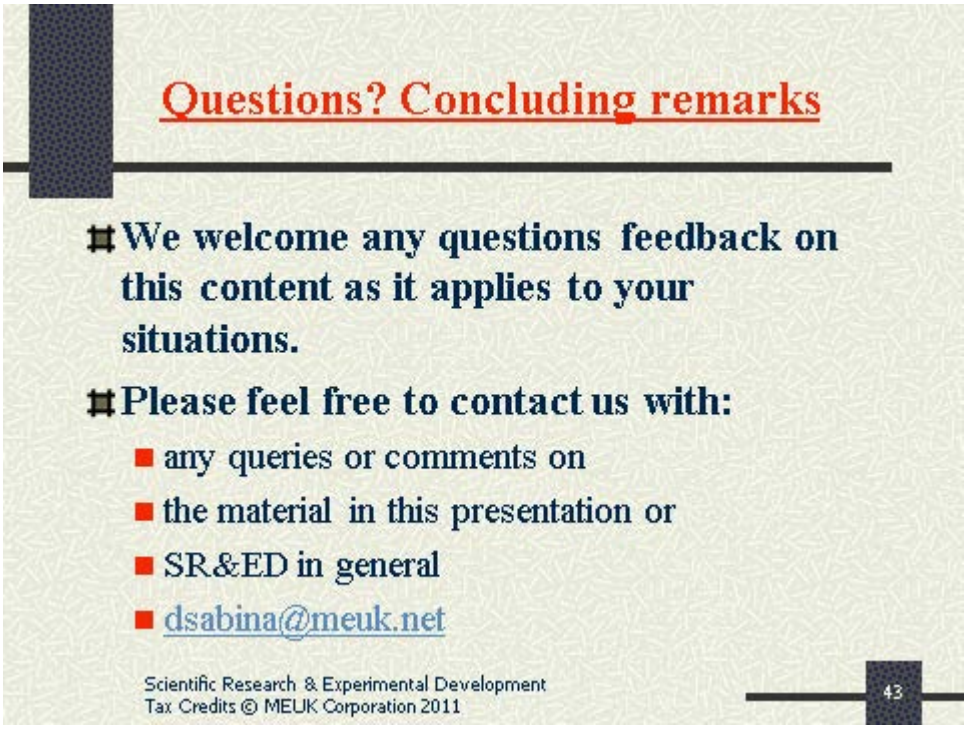
Ruling & rationale:

The $250,000 fine imposed on each Appellant is approximately 77% of this amount. This is on the low end of the range set out in the Income Tax Act and, in my view, there is no reason to reduce it"

Implications and author's commentary

In the author's discussions to date, these fines and related enforcement measures are actually being perceived ad seen as a positive step by most " honest" claimants and claim preparers.

VI Concluding remarks



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