



SR&ED Newsletter **Edition 2014 –1**

Recent developments to Scientific Research & Experimental Development (SR&ED) project management & tax credit claims.

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**New Canada Revenue Agency
Procedures**

**New form T661(13) to reflect 2013
changes**

Notable quote:

“It’s tough when markets change and your people within the company don’t.”

- Harvard Business Review

This form is effective for claims filed after January 1, 2014 & includes a new project format & character limits.

CRA OLD FORMAT (up to 2013)		CRA NEW FORMAT (after 2013)	
T661 Box #	3 Criteria	T661 Box #	3 Criteria
240	<u>Advancement (50 lines):</u> "What technological advancements were you trying to achieve? "	n/a	replaced by box 246 below
242	<u>Technological Uncertainty (50 lines):</u> What technological obstacles/uncertainties did you have to overcome to achieve the technological advancements described in Line 240?	242	<u>Technological Uncertainty > Standard Practice (50 lines):</u> "What scientific or technological uncertainties did you attempt to overcome – uncertainties that could not be removed using standard practice? "
244	<u>Activities (100 lines):</u> What work did you perform in the tax year to overcome the scientific or technological uncertainties described in Line 242? (Summarize the systematic investigation or search)	244	<u>Activities (100 lines):</u> What work did you perform in the tax year to overcome the scientific or technological uncertainties described in Line 242? (Summarize the systematic investigation or search)
n/a	formerly box 240 above	246	<u>Advancement (50 lines):</u> What scientific or technological advancements did you achieve as a result of the work described in Line 244?

The 2 most significant changes are:

1) Moving the advancement field

Now at the end of the project description (vs. the start) & in the **past vs. future tense**

- Effect: Box 240 now box 246
- Clarify advancements achieved vs. contemplated)




2) An increased focus on “standard practice”

- Effect: Box 240 now box 246 which effectively
- combines standard practices with uncertainties (formerly separate)
- which raises further questions on how much detail to include on project objectives given related word limits

Suggested project reporting format



RDBASE.NET International SR&ED template

I		<u>OBJECTIVE BEYOND STANDARD PRACTICE</u>	<u>Recommended documentation</u>	<u>GOAL: prove to Government (CRA, IRS, patent office)</u>
	i)	State of Existing technology	State benchmarking methods & sources	Limits of information available to someone "skilled in the art."
	ii)	Objective(s)	Top 5 measureable "Objectives"	Quantifiable Objectives beyond known limits
II		<u>TECHNOLOGICAL UNCERTAINTIES</u>	Top 5 "Variables" for experimentation	Formulate "test matrix" to test hypotheses
III		<u>EXPERIMENTAL ACTIVITY</u>	<u>Defined by tax year*</u>	
	i)	Experimentation method	Number of alternatives tested & how?	Justify sample sizes
	ii)	Results	Correlate to "Objectives"	Provide basis for Conclusions
	iii)	Conclusions	Correlate to "Variables"	"New knowledge" illustrates "Technological Advancement"

Report format to address new CRA questions

CRA NEW FORMAT (after 2013)		HOW TO PROVIDE INFO.
T661 Box #	3 Criteria	RDBASE SR&ED project - 5 Steps
n/a	replaced by box 246 below	
242	<p><u>Technological Uncertainty > Standard Practice (50 lines):</u></p> <p>"What scientific or technological uncertainties did you attempt to overcome – uncertainties that could not be removed using standard practice?"</p>	<p>I i): Define Standard Practice (SP)</p> <p>I ii): Objectives > Standard Practice &</p> <p>II: Technological uncertainties to research</p>
244	<p><u>Activities (100 lines):</u></p> <p>What work did you perform in the tax year to overcome the scientific or technological uncertainties described in Line 242? (Summarize the systematic investigation or search)</p>	<p>III i): List selected research logs to show work done "systematically"</p>
246	<p><u>Advancement (50 lines):</u></p> <p>What scientific or technological advancements did you achieve as a result of the work described in Line 244?</p>	<p>III ii & iii): Display results & conclusions.</p> <p>The "technological conclusions" = advancements if all other criteria met.</p>

Notable quote:

“Innovation is the ability to convert ideas into invoices.”

- L. Duncan

Notable quote:

“It is not how many ideas you have. It’s how many you make happen.”

- Accenture

New CRA Request for information (RFI) procedures & recommendations to address

In 2013 the CRA began sending “requests for information” (RFI’s) to a large % of claimants.

The most notable of the “standard” questions across the country fall into **2 main categories**:

1) **Technical documentation**

- a. Evidence of experiments
- b. Due diligence to define standard practice

2) **Financial info (detailed timesheet correlation)**

1) Technical documentation

a) Evidence of “relevant” experimentation

The CRA requests, “Please send ...

- up to maximum of **five (5) letter-sized (8.5" x 11") pages for each project** claimed
- which **you feel best demonstrates** that the work meets the definition of **SR&ED** in Subsection 248(1) of the Income Tax Act.”

b) Evidence of initial “due diligence” to define standard practices

The CRA requests, “In addition, if not included in the above sample, please send us copies of the **contemporaneous evidence** that:

- recorded your initial **due diligence** activities and that shows that available technology could not overcome the technological problem or obstacle that you faced;
- recorded **the plan** you subsequently devised to overcome the technological problem or obstacle;
- Preserved the **new technological knowledge** gained by the company.”

Recommendations on meeting requirements

Google patents – new benchmarking tools

Many users are unaware of the information which is available to benchmark existing knowledge for their fields of science.

Once excellent example is Google Patent & Prior art search tools which:

- are FREE to use &

- allow controlled searches of patents, scholarly article, the web, books & people.

We have found that the information is useful to support both the:

- Claims for tax credits (due diligence) &
- Ongoing commercialization of the research results.

Notable quote:

“The best ideas lose their owners and take on lives of their own.”

- N. Bushnell

3 step documentation process:

Notable quote:

**“Technological Advancement”
requires the integration of
3 key steps.**

**“Small opportunities are often the beginning
of great enterprises.”**

- Demosthenes

STEPS TO ADDRESS "TECHNOLOGICAL ADVANCEMENT" CRITERIA							STEPS																							
R&D Base demo - Key Criteria Summary																														
1101 - Machinery - Improve Compounding Equipment							1) UPLOAD PRIOR ART - try to include Google patents																							
Benchmarks: Internet articles: 33 Patent searches: 12 patents Competitive products or processes: 14 Similar prior in-house technologies: 8 products / Potential components: 6 products Queries to experts: 2 responses	Objectives: Temperature variance: 2 Deg C Output: 120 output/minute Shear : 12 tons/sq.inch Improve Dispersivity : 1 mm Maximum cost increase : 15 %																													
Uncertainty: 1 - Temperature Control							2) CORRELATE prior art to VARIABLES for experiments																							
Key Variables: 1 optimal measurement devices HYPOTHESES 2 device locations, 3 vibration - locations, intensity, duration																														
<table border="1"> <thead> <tr> <th>Activity</th> <th>Testing Methods</th> <th>Results - % of Objective</th> <th>Variables Concluded</th> <th>Hours</th> <th>Materials \$</th> <th>Subcontractor \$</th> <th>Fiscal Year</th> </tr> </thead> <tbody> <tr> <td>1 - Thermocouples</td> <td>Analysis / simulation: 12 alternatives</td> <td>Temperature variance: 4 Deg C (33 %) Output: 100 output/minute (0 %) Improve Dispersivity : 0.6 mm (20 %)</td> <td>device locations vibration - locations, intensity, duration</td> <td>272.00</td> <td>4,500.00</td> <td>3,796.10</td> <td>2011</td> </tr> <tr> <td>2 - Fiber Optic System Optimization</td> <td>Analysis / simulation: 6 alternatives Trails: 4420 runs / samples Physical prototypes: 14 samples Lines of code: 5 Lines of prototype code</td> <td>Temperature variance: 1 Deg C (133 %) Output: 112 output/minute (60 %) Shear : 13 tons/sq.inch (150 %) Improve Dispersivity : 0.9 mm (80 %) Maximum cost increase : 20 % (133 %)</td> <td>device locations optimal measurement devices</td> <td>370.00</td> <td>2,000.00</td> <td>1,496.76</td> <td>2011</td> </tr> </tbody> </table>	Activity	Testing Methods	Results - % of Objective	Variables Concluded	Hours	Materials \$	Subcontractor \$	Fiscal Year	1 - Thermocouples	Analysis / simulation: 12 alternatives	Temperature variance: 4 Deg C (33 %) Output: 100 output/minute (0 %) Improve Dispersivity : 0.6 mm (20 %)	device locations vibration - locations, intensity, duration	272.00	4,500.00	3,796.10	2011	2 - Fiber Optic System Optimization	Analysis / simulation: 6 alternatives Trails: 4420 runs / samples Physical prototypes: 14 samples Lines of code: 5 Lines of prototype code	Temperature variance: 1 Deg C (133 %) Output: 112 output/minute (60 %) Shear : 13 tons/sq.inch (150 %) Improve Dispersivity : 0.9 mm (80 %) Maximum cost increase : 20 % (133 %)	device locations optimal measurement devices	370.00	2,000.00	1,496.76	2011						3) UPLOAD ANALYSIS of Variables
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TECHNOLOGICAL ADVANCEMENT

CASE STUDY – EXAMPLE

Our prior newsletter ___ discussed why the Tax Courts require evidence to be organized using the “scientific method.”

For a case study example of this documentation process please view the

This requires EACH of the 3 steps listed above.

RDBASE Technology Documentation example

If any step is missing the criteria will not be met.

Conversely if all components are met then the technological advancement criteria is achieved.

2) Supporting financial documentation

a) New focus on “weekly” timesheet details

SR&ED Wages & Contractor labour

For salaries, wages and contract labour, please provide:

- An organization chart with job descriptions/duties for each person claimed.
- **Details of activities** for each SR&ED Project claimed, including
- number of hours claimed **for each individual per activity, per month.**

Contractors

For each contractor, we require a copy of the contract(s) & statement(s) of work.

Recommendations on how to meet requirements

Perhaps the most notable item in the RFI questionnaires is consistent request for **timesheet** detail at a monthly, **weekly** or in some cases even a daily level.

Since current CRA directions on how to prepare proper timesheet are vague as to what is actually required this is likely to become an issue of contention.

Ultimately each employee should be able to identify how his or her

- “design or testing” work was
- “necessary to resolve”
- one or more of the stated “uncertainties.”

Recommended Employee time detail for SR&ED

(record for each project / each year)

Employee details			Linking work to SR&ED				SR&ED wages	
First Name	Last Name	Hours Worked	Type of work	Variables researched	Comments	Location	hourly \$ rate	SR&ED \$
			1) Design 2) Testing 3) Programming 4) Supervision	<i>OPTIONAL - Link to the variables in the project</i>	<i>OPTIONAL - should be completed by the more senior people if possible.</i>	<i>Country + Province or State</i>		
ALREADY EXISTS most systems			This information is MISSING in most time reporting systems				Complete @ y/e	
NEED TOTALS BY STATE/ PROVINCE							\$	-

System requirements:

Having the **development team agree on the key variables** of experimentation allows this correlation to take place.

The “log interval” can be decided by the team based on the companies reporting preferences.

CASE STUDY – EXAMPLE

For a case study example of this documentation process please view the

RDBASE Technology Documentation example

New energy sector R&D project examples from Australia¹

July 2013 Australian government released 6 R&D project examples for **Energy Industry**

- Dye sensitive solar cells
- Battery life
- Wind wake (wind farm software)
- Solar capture
- Energee (microalgae use)
- Supplygrid (smart meter)

They also have examples for **other industries** including:

- Agrifood
- Biotech
- ICT (Information & communications)
- Manufacturing &
- Built Environments (construction)

Author's commentary:

In the author's opinion these examples are a useful source of ideas since:

- The **Canadian & Australian definitions of eligible SR&ED** work are **the same**²
- These examples appear more complete than CRA's 10 new examples which illustrate only specific concepts instead of entire project descriptions.

Notable quote:

“The key to success is for you to make a habit throughout your life of doing the things you fear.”

- Vincent Van Gogh

Notable quote:

“The reasonable man adapts himself to the world;

the unreasonable one persists in trying to adapt the world to himself.

Therefore all progress depends on the unreasonable man.”

- George Bernard Shaw

¹ <http://www.ausindustry.gov.au/programs/innovation-rd/RD-TaxIncentive/Guidance-and-Information/Industry-Guides/Pages/default.aspx>

² Definition of R&D per OECD's Frascati Manual

Questions or feedback

We welcome your questions or feedback on any issues raised in this letter.

We also encourage interested parties to examine:

- past SR&ED newsletters
- SR&ED tax guide [the Guide to RDBASE.NET],
- “RDBASE.NET” online SR&ED tracking software &
- additional tutorials re. eligible SR&ED activities at

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Although we endeavor to ensure accurate & timely information throughout this letter, it is not intended to be a definitive analysis of the legislation, nor a substitute for professional advice.

Before implementing decisions based on this information, readers are encouraged to seek professional advice, in order to clarify how any issues discussed herein, may relate to their specific situations.

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